

HD

HISTORICAL DICTIONARY *of*

**CHINESE
INTELLIGENCE**



I.C. SMITH AND
NIGEL WEST

HISTORICAL DICTIONARY

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I. C. Smith and Nigel West



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A hundred ounces of silver spent for information
may save ten thousand spent on war.

Sun Tzu, *The Art of War*

The Counterintelligence Community considers the People's Republic of China to be one of the most aggressive countries targeting U.S. military, political, and economic secrets as well as sensitive U.S. trade secrets and technologies.

Dennis C. Blair, Director of National Intelligence May 2009

China is stealing our secrets in an effort to leap ahead in terms of its military technology but also the economic capability of China. It is a substantial threat.

Robert Mueller, FBI Director June 2007

Chinese actors are the world's most active and persistent perpetrators of economic espionage.

Office of the National Counterintelligence Executive November 2011

The reason that it is always ethnic Chinese who seem to be involved in Chinese intelligence matters is that they typically are the only ones China asks for assistance.

Dr. Paul Moore *New York Times*, September 1999

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Editor's Foreword

Chinese intelligence, as this book amply shows, is not quite like any other form of intelligence in other countries, East or West. First of all, China itself is “divided” in a sense, in that there is the Communist-dominated People’s Republic of China, the presently democratic but earlier Kuomintang-dominated Republic of China, better known as Taiwan, lesser bits like Hong Kong and Macao, which are being reintegrated in the motherland but were previously fairly autonomous, and a huge community of overseas Chinese located in many East Asian countries and now increasingly in Europe and the United States. These were all the source of espionage, sometimes against one another, as for Beijing versus Taipei, or against any number of other countries, including the Soviet Union, an earlier ally, which has since transmuted into the rival, Russia. Once this scenario was fairly simple, during the Cold War at least, when China was an opponent to Western countries, but now that it is supposedly a friend and even partner, it has become incredibly complex with the target being less military and more commercial. That it can make sense of all this is a great achievement of the *Historical Dictionary of Chinese Intelligence*.

In order to make sense of it all, it is necessary to embed the intelligence scene in the broader historical, political, and economic context, which is done to some extent in the chronology but then more painstakingly in the introduction, with both of these sections obviously also taking a good look at the many twists and turns of Chinese intelligence in the broader sense, namely intelligence regarding all of the many Chinas. The details are then provided in the dictionary section, with entries on numerous persons, including top politicians from the chairman or president on down, since intelligence was and is regarded as too important and sensitive to be left entirely to professionals. But professionals there were, many of them in the Chinas and their maze of security organizations, and of course in the target countries, primarily at present the United States but many others as well, with each of these getting a specific entry. Finally, the entries on numerous cases, many of them ending “successfully” for China’s opponents in the sense that the spies got caught . . . but not before they had managed to get masses of information and some crucial secrets. And, what is not said and could not be said but constantly occurs to the reader, if there were so many

cases and the spies were so hard to entrap, how many more cases must there be in which they got away with or indeed are still getting away with it? This being said, do not forget that, devious and misunderstood though it may be, many useful books have been written on the topic, and they can be found in the bibliography.

This book was written by the fascinating team of I. C. Smith and Nigel West. I. C. Smith certainly knows the situation from inside, having worked for the Federal Bureau of Investigation for a quarter-century, during which time he developed considerable familiarity with intelligence as practiced by the People's Republic of China and was crucial in several major cases included in this book. After retirement, among other things, he became an analyst of and commentator on the broader threat to the United States of China's growing presence and influence. To give his personal views, in 2004, he published his autobiography, *Inside*. His coauthor, Nigel West, has always been interested in Chinese intelligence as part of his ongoing study of intelligence in general, as reflected by a series of books he has written over the past several decades, including a half-dozen in this series. He is widely known as an experts' expert on espionage, and this title fills one of the few remaining gaps. Between them, they provide a good deal of insight, which is of great interest to specialists and amateurs but also some food for thought, which could certainly be useful to all of us.

Jon Woronoff
Series Editor

Reader's Note

China is the name of several different states, including Imperial China, the Republic of China (ROC), and the People’s Republic of China (PRC), but in these pages, the ROC will be referred to as Taiwan, and for brevity, China will be used for both Imperial China and the PRC. Similarly, South Korea will be used for the Republic of Korea (ROK), and the Democratic People’s Republic of Korea (DPRK) will be referred to as North Korea.

On 11 February 1958, the Fifth Session of the First National People’s Congress in the PRC adopted the Hanyu Pinyin Romanization system for Standard Mandarin, replacing the Wade-Giles and other systems of Romanization. *Hanyu* means the “Chinese language,” and *Pinyin* literally means “spelling sound.” The PRC approved the changes to improve the literacy rate among adults and to remove the vestiges of China’s past, which had been dominated by foreign powers and the government of the defeated Koumintang (KMT). Overnight, officially, “Mao Tse-tung” became “Mao Zedong,” “Chou En-lai” became “Zhou Enlai,” “Canton” became “Guangzhou,” and “Peking” became “Beijing.” Some names remained the same, such as Kang Sheng and Shanghai. The authors herein will use the Pinyin Romanization, except for historical figures, such as Yan Shih-kai, and individuals associated with the KMT, like Chiang Kai-shek, Tai Li, and Sun Yat-sen.

We will also use the Chinese method of writing Chinese names beginning with family names (surnames) followed by given names. Again, using Mao Zedong as an example, Mao is the family name followed by the given name of Zedong.

This can be somewhat confusing as Overseas Chinese (those living outside China) frequently adopt Anglicized names and the Western practice of using given (or first) names followed by surnames with their Chinese names. For example, Larry Wu-tai Chin’s Chinese name is Jin Wudai. There is also an inconsistency among Overseas Chinese in how they use their names. For instance, Wen Ho Lee (Lee being his family name) adopted the Western method of writing his name while Min Gwo Bao did not, so Min is the family name. The authors will simply use the same names as practiced by the individuals themselves and, when necessary, cross-reference those names to ensure completeness. As Chinese names have the

family name first and the given name last, Mao Zedong will appear under the letter M, and Chiang Kai-shek will be found under the letter C, not K.

To make the dictionary easier to use, there are plenty of cross-references, and any item that has its own entry is printed in bold. Any other related entries are mentioned as *See also*.

Acronyms and Abbreviations

ACSEJ	Association of Chinese Scientists and Engineers in Japan
AFSA	Armed Forces Security Agency
AFSS	Air Force Security Service
APT	Advanced persistent threat
ASA	Army Security Agency
ASIO	Australian Security Intelligence Organisation
BAAG	British Army Aid Group
BEW	Board of Economic Warfare
BfV	Bundesamt für Verfassungsschutz (Federal Office for the Protection of the Constitution)
BIIR	Beijing Institute of International Relations
BISE	Beijing Institute of Systems Engineering
CAC	China Aerospace Corporation
CAEIT	China Academy of Electronics and Information Technology
CAEP	China Academy of Engineering Physics
CAT	Civil Air Transport
CCP	Chinese Communist Party
CDIC	Central Discipline Inspection Commission
CDSA	Central Department of Social Affairs
CHICOM	Chinese Communist
CHIS	Chinese Intelligence Service
CIA	Central Intelligence Agency
CICIR	China Institutes of Contemporary International Relations
CID	Central Investigation Department
CIFE	Combined Intelligence Far East
CIG	Central Intelligence Group
CISS	China Institute of International Strategic Studies
CITSC	China Information Technology Security Center
CMC	Central Military Commission
CNEIC	China Nuclear Energy Industry Corporation
CNNC	China National Nuclear Corporation
CNPC	China National Petroleum Company
COCOM	Coordinating Committee on Multilateral Export Controls
COSTIND	Commission of Science, Technology and Industry for National Defense
CP	Communist Party
CPSU	Communist Party of the Soviet Union

CPUSA	Communist Party of the United States of America
CSIS	Canadian Security Intelligence Service
CSS	China surface-to-surface missile
CSSA	Chinese Students and Scholars Association
CSTO	Collective Security Treaty Organization
CT	Chinese terrorist
DCI	Director of central intelligence
DCIS	Defense Criminal Investigative Service
DDO	Deputy director for operations
DF	<i>Dong Fang</i>
DGSE	Direction Générale de la Sécurité Extérieure
DIA	Defense Intelligence Agency
DNC	Democratic National Committee
DO	Directorate of Operations
DoE	Department of Energy
DPRK	Democratic People's Republic of (North) Korea
DSB	Director Hong Kong Special Branch
DSD	Defence Signals Directorate
EAGLE	Export and Anti-proliferation Global Law Enforcement
ECRIEE	East China Research Institute of Electronic Engineering
ELINT	Electronic intelligence
FBI	Federal Bureau of Investigation
FBIS	Foreign Broadcast Information Service
FECB	Far East Combined Bureau
FISA	Foreign Intelligence Surveillance Act, 1978
FISC	Foreign Intelligence Surveillance Court
FLI	Foreign Language Institute
FSB	Federalnaya Sluzhba Bezopasnosti (Russian Federal Security Service)
FSO	Foreign Service officer
GC&CS	Government Code and Cypher School
GCHQ	Government Communications Headquarters
GRU	Glavnoe Razvedyvatel'noe Upravlenie (Soviet Military Intelligence Service)
GSD/PLA	General Staff Department of the People's Liberation Army
HASP	High Altitude Sampling Program
HCUA	House Committee on Un-American Activities
HKP	Hong Kong Police
HVA	Hauptverwaltung Aufklärung (East German foreign intelligence service)
IAD	Istrebitel'naia Aviatsonnaia Diviziaa (Fighter Aviation Regiment)
IAPCM	Institute of Applied Physics and Computational Mathematics

IBMND	Intelligence Bureau of the Ministry of National Defense
ICBM	Intercontinental ballistic missile
ICE	Immigration and Customs Enforcement
IIR	Institute of International Relations
ILD	International Liaison Department
ILD/PLA	International Liaison Department of the People's Liberation Army
INER	Institute of Nuclear Energy Research
IPR	Institute of Pacific Relations
IRBM	Intermediate-range ballistic missile
ISLD	Inter-Services Liaison Department
JSSL	Joint Services School for Linguists
KGB	Komitei Gosudarstevnnoi Bezopasnosti (Soviet intelligence service)
KIS	Kuomintang Intelligence Service
KMT	Kuomintang
KPD	Kommunistische Partei Deutschlands (German Communist Party)
Legat	Legal attaché
LLVI	Low-level voice intercept
MCP	Malayan Communist Party
MEI	Ministry of Electronics Industry
MI5	British Security Service
MI6	British Secret Intelligence Service
MI9	British Escape and Evasion Service
MIB	Military Intelligence Bureau
MID	Military Intelligence Department
MIRV	Muliple Independent Reentry Vehicle
MoD	Ministry of Defence
MPAJA	Malayan Peoples' Anti-Japanese Army
MPS	Ministry of Public Security
MRBM	Medium-range ballistic missile
MRV	Multiple reentry vehicle
MSS	Ministry of State Security
NASA	National Aeronautics and Space Administration
NATO	North Atlantic Treaty Organization
NCIS	Naval Criminal Investigative Service
NCIX	National Counterintelligence Executive
NCNA	New China News Agency
NIPRNET	Non-secure Internet Protocol Router Network
NIS	National Intelligence Service (South Korea)
NIS	Naval Investigative Service

NKVD	Narodni Kommisariat Vnutrennih Dei (Soviet Intelligence Service)
NOC	Non-official cover
NRSC	National Remote Sensing Center
NSA	National Security Agency
NSB	National Security Bureau (Taiwan)
NSCN	National Socialist Council of Nagalim
NSD	National Security Division
NWIEE	Northwest Institute of Electronic Equipment
OGPU	Obyeddinenoje Gosudarstvennoye Politischekoye Upravlenie (Soviet intelligence service)
OMS	Foreign Liaison Department of the Comintern
ONI	Office of Naval Intelligence
ORE	Office of Research and Estimates
OSO	Office of Special Operations
OSS	Office of Strategic Services
PDA	Personal digital assistant
PLA	People's Liberation Army
PLAAF	People's Liberation Army Air Force
PoW	Prisoner of war
PRC	People's Republic of China
PVA	People's Volunteer Army
PVDE	Polícia de Vigilância e de Defesa do Estado (Portuguese secret police)
QED	Quiet electric drive
RAF	Royal Air Force
RAT	Remote access tool
RATS	Regional Anti-Terrorist Structure
RAW	Research and Analysis Wing (Indian intelligence service)
RCMP	Royal Canadian Mounted Police
RHKP	Royal Hong Kong Police
RII	Resources Investigation Institute
ROC	Republic of China
ROK	Republic of Korea
RSM	Radio Squadron Mobile
SA	Sturmabteilung
SACO	Sino-American Cooperative Organization
SAM	Surface-to-air missile
SCO	Shanghai Cooperation Organization
SDS	Students for a Democratic Society
SIS	Secret Intelligence Service

SLBM	Submarine-launched ballistic missile
SLO	Security liaison officer
SOAS	School of Oriental and African Studies
SOE	Special Operations Executive
SRBM	Short-range ballistic missile
SRW	Strategic Reconnaissance Wing
SSD	State Security Department (North Korea)
SSTC	State Science and Technology Commission
SSU	Strategic Services Unit
STS	Special training school
SVR	Sluzhba Vnezhney Razvedki (Russian Federation intelligence service)
SWIEE	Southwest Institute of Electronic Equipment
SWIET	Southwest Institute of Electronics Technology
SWW	Sluzba Wywiadu Wojskowego (Polish foreign intelligence service)
TACAN	Tactical air navigation system
UAP	United Australia Party
UAV	Unmanned aerial vehicle
UFD	United Front Department
VLSIC	Very large-scale integrated circuit



Map of China, courtesy of the CIA's The World Factbook, 2010

Chronology

400 BC Sun Tzu writes *The Art of War*.

625 Empress Wu Chao creates China's first intelligence agency.

1839 First Opium War breaks out.

1856 Second Opium War results in foreign concessions granted in Shanghai and Kowloon opposite Hong Kong.

1894 The First Sino-Japanese War begins over control of Korea.

1895 The Qing Dynasty, defeated by Japan, sues for peace.

1898 The Boxer Uprising begins in an attempt to expel all foreigners from China.

1901 The Boxer Protocol signed with China paying huge indemnities to eight nations for damages incurred during the Boxer Uprising.

1902 Anglo-Japanese Alliance formed.

1904 Russo-Japanese War begins.

1905 Japan wins Russian concessions in South Manchuria. Sun Yat-sen forms the revolutionary Alliance Society in Tokyo.

1906 Ralph Van Deman visits Peking to collect intelligence about the city's fortifications.

1908 Pu Yi, aged just 2 years and 10 months, named emperor of China.

1911 The Qing (Manchu) Dynasty collapses after 2,000 years of imperial rule. Sun Yat-sen returns from Hawaii to be first president of the republic.

1912 The First Chinese Republic is proclaimed with Sun Yat-sen as president when Pu Yi abdicates his imperial throne following nationwide elections. Founding of the Kuomintang (KMT) or Nationalist Party.

1913 Nationalist party leader, Song Jiaoren, assassinated in Shanghai as he boards a train for Peking to head a coalition democratic government.

1915 *Xin Qingshian* (*New Youth*) magazine founded by Chen Duxiu and becomes the focus of revolutionary youth, with Mao Zedong contributing articles under a pseudonym.

1916 The warlord era begins in China following the death of Yuan Shih-kai.

1917 Pu Yi installed as emperor for 12 days by warlord general Zhang Yun.

1918 Agnes Smedley indicted on espionage charges.

1919 The May Fourth Movement organizes widespread protests against the Japanese and the signing of the Versailles Treaty.

1920 Mao Zedong, while teaching in an elementary school, starts a Communist Party cell in Changsha, Hunan Province.

1921 The Chinese Communist Party (CCP) founded in Shanghai. Soviet agents establish a *rezidentura* in Peking.

1922 Kang Sheng flees to Germany and later meets Zhou Enlai in France.

1923 The Nationalist Party (KMT) is revitalized by Sun Yat-sen with guidance from Comintern agent Mikhail Borodin.

1924 Sun Yat-sen proclaims an alliance between the KMT and Communists. Already a Communist, Zhou Enlai returns to China from France to be appointed Dai Jitao's deputy of the Nationalist Party's political department.

1925 Sun Yat-sen dies, and his designated successor Liao Zhongkai is assassinated by the Green gang from Shanghai. Chiang Kai-shek succeeds him as head of the Nationalist Party.

1926 Deng Xiaoping returns to China after studying in Moscow.

1927 Peking police raid the Soviet consulate. Chiang Kai-shek breaks with Moscow and attempts to annihilate the CCP with a severe crackdown in Shanghai and other cities.

1928 Agnes Smedley travels to China. Tai Li appointed head of Chiang Kai-shek's Clandestine Investigation Section.

1929 Mao Zedong creates first Chinese Soviet republic in Jiangxi Province. The Malayan Communist Party created. The Soviet consulate in Harbin raided by Chinese police.

1930 Richard Sorge posted to Shanghai.

1931 Hilaire Noulens arrested in Shanghai. HMS *Poseidon* sunk. Japan invades Manchuria. Nationalist Armies commanded by Chiang Kai-shek encircle the Jiangxi Soviet in an attempt to destroy the CCP.

1932 The Far East Combined Bureau (FECB) begins cryptographic operations on Stonecutter's Island, Hong Kong. Pu Yi installed as ruler of Manchukuo by the Japanese.

- 1933** Richard Sorge leaves Shanghai for Tokyo.
- 1934** The British Government Code and Cipher School intercepts and reads MASK, the Comintern's wireless traffic exchanged between Moscow and Shanghai. Chiang Kai-shek's German-trained officers drive the Communists out of Jiangxi, and the Long March to northwest China begins.
- 1935** Mao Zedong assumes leadership over the Red Army during the Long March. The U.S. Office of Naval Intelligence establishes a network with Tai Li to spy on the Japanese.
- 1936** Chiang Kai-shek abducted in the Xi'an Incident. Kang Sheng visits Paris for the Comintern.
- 1937** The MASK intercepts are terminated. Kang Sheng returns to China after four years in the Soviet Union. China signs a nonaggression pact with Moscow. The Second Sino-Japanese War begins as Japan invades Manchuria.
- 1938** Kang Sheng heads the Central Department of Social Affairs, the *Shehuibu*, the CCP's security and intelligence arm. Tai Li persuades the Communist Zhang Guotao to defect to the KMT. Herbert Yardley employed to break Japanese ciphers.
- 1939** Yan'an students arrested on espionage charges.
- 1940** Agnes Smedley detained by the British in Hong Kong.
- 1941** Under Japanese threat, the FECB is evacuated from Hong Kong to Kranji, Singapore.
- 1942** Morris Cohen captured by the Japanese in Hong Kong as he attempts to rescue Madame Sun Yat-sen. The Office of Strategic Services (OSS) sends a mission to China. The Malayan Communist Party begins a guerrilla campaign against the Japanese occupation. Tai Li heads joint Sino-American intelligence operations.
- 1943** Larry Wu-tai Chin recruited by the U.S. Army in China as an interpreter.
- 1944** Richard Sorge executed in Tokyo. The Dixie Mission arrives in China.
- 1945** Leaked OSS reports prompt an investigation of *Amerasia*. Pu Yi is captured by the Soviet Red Army.
- 1946** Tai Li is killed in an aircraft accident.

1947 Lai Tek is exposed as a mole by the Malay Communist Party leader Chin Peng and murdered. The Civil War continues in China with the Communists gradually gaining the upper hand. Martial law is established in Taiwan following a rising against the Nationalist government.

1948 Joan Hinton moves to China. Qian Xuesen returns to China after 10 years' research in France. An emergency is declared in Malaya.

1949 Larry Chin joins the U.S. consulate in Shanghai as a translator. The CCP's Central Department of Social Affairs is reorganized with many of its officers transferred to the newly established Ministry of Public Security, the *Gong'anbu*. KMT forces led by Chiang Kai-shek withdraw to Taiwan. The People's Republic of China (PRC), the *Zhongzhonghua Renmin Gongheguo*, is proclaimed by Mao Zedong. Mao holds talks with Josef Stalin in Moscow.

1950 The Sino-Soviet Treaty of Friendship, Alliance and Mutual assistance is signed in Moscow. The Central Intelligence Agency's (CIA) Douglas Mackiernan is killed trying to enter Tibet, prompting the Chinese occupation. A Nationalist F-10 reconnaissance aircraft is shot down, killing the crew of six. North Korea invades the south. Zhu Chenzhi is executed in Taiwan. The Armed Forces Security Agency (AFSA) predicts that Chinese troops will cross the Yalu River to fight United Nations forces in Korea. Josef Stalin repatriates Pu Yi to China. Colonel John Lovell is captured and later killed after his RB-45C is shot down over the Yalu River.

1951 Signal intercepts prove Chinese MiG-15 fighters are being flown by Soviet pilots. CIA officer Hugh Redmond is arrested in Shanghai. General Douglas MacArthur calls for an attack on China and is relieved of his command. Counterrevolutionary campaigns begin in China, and the Labor Reform Program (*Laogai*) is established.

1952 TROPIC aircrew is captured in China. Larry Wu-tai Chin joins the Foreign Broadcast Information Service (FBIS) in Okinawa.

1953 Colonel John Arnold is taken prisoner near the Chinese town of Antung in Liaoning Province while dropping agents from a B-29. A British Government Communications Headquarters (GCHQ) base is opened at Little Sai Wan on Hong Kong Island. A U.S. Navy P2-V Neptune is shot down near Shantou (formerly Swatow) in China's Guangdong Province.

1954 The First Straits crisis breaks out with a conflict between Taiwan and the PRC. Diplomatic relations at chargé d'affaires rank is established between London and Beijing. Taiwan signs a mutual defense pact with the United States. A Cathay Pacific flight is shot down near Hainan Island, killing 10.

1955 Mao Zedong decides to develop a Chinese atomic weapon. A Sino-Soviet atomic energy collaboration agreement is signed. An Air India Constellation airliner is sabotaged in Hong Kong.

1956 Communist-inspired rioting in Hong Kong. Premier Zhou Enlai announces a 12-year plan to modernize Chinese technology. Qian Xuesen is deported to China. The People's Liberation Army (PLA) bombs Tibetan monasteries. U.S. Navy P4M-IQ Mercator is shot down over the Chengzu Islands near Shanghai with the loss of 16 crew.

1957 E. D. Vorobiev is appointed to head a Soviet nuclear technology transfer program to Beijing. The CIA commences U-2 overflights of the PRC from Peshawar in Pakistan. Malaya is granted independence. The Hundred Flowers Movement of relative intellectual freedom in the PRC is quickly followed by the Anti-Rightist Campaign, which results in the arrest of 300,000 intellectuals.

1958 A Taiwanese P4Y reconnaissance aircraft makes an emergency landing at Kai Tak Airport in Hong Kong. A Taiwanese RB-57D is shot down over Shandong Province by a MiG-15. Soviet physicists are sent to the PRC to assist in the atomic weapons project. Second Strait crisis as the PLA shells the island of Quemoy. The Great Leap Forward, resulting in an economic collapse, is launched by Mao Zedong.

1959 Qian Xuesen meets Klaus Fuchs, just released from Wakefield Prison in England. Nikita Khrushchev withdraws technical support for the PRC's nuclear program. A U.S. P4M-IQ Mercator is attacked off Wonsan in North Korea. A Taiwanese RB-57D is shot down near Beijing by an SA-2 Guideline missile. A famine caused by the Great Leap Forward begins that will kill an estimated 30 million over three years.

1960 TOPPER missions begin to insert remote sensors in the PRC. CIA U-2s withdrawn from Peshawar and Atsugi. Work stops at the plutonium-producing reactor at Jiuquan in Gansu Province and concentrates on uranium enrichment at Lanzhou, Gansu. Construction of a nuclear test center begins at Malan in northwest China. CORONA satellite imagery

becomes available in the United States. A Black Cat U-2 overflies mainland China from Taiwan.

1961 Larry Chin joins the FBIS in Santa Rosa, California. Chan Tek Fei is arrested in Hong Kong. Professor Wang Minchuan defects in Greece. Two PLAAF pilots are reported to have defected to South Korea in September. Albania withdraws from the Warsaw Pact.

1962 Bernard Boursicot is posted to Paris. Taiwanese Colonel Chen Huai-sheng's U-2A is shot down over Nanchang. Chao Fu defects in Bonn. Mao Zedong abandons the Great Leap Forward. The PRC attacks across the Sino-Indian border in the Himalayas.

1963 The Lanzhou nuclear facility begins production of enriched uranium. General Chiang Ching-kuo proposes an attack on the nuclear sites at Haiyan (Koko Nor, Qinghai Province) and at Lanzhou to the CIA. Major Yeh Chang-yi's U-2C is shot down by a SA-2 missile. The Nuclear Test Ban Treaty is signed in Moscow but is not ratified by the PRC. Zhou Hongjin defects to the Soviet Union.

1964 The CIA flies U-2 missions over mainland China from Charbatia in India. The PRC tests an atomic bomb at Lop Nor. Taiwanese Colonel Nan Ping Lee's U-2G is shot down over Fujian Province. President Charles de Gaulle recognizes the PRC. A Taiwanese U-2 photographs the Lanzhou uranium enrichment plant at night with an infrared camera.

1965 Taiwanese Major Wang Shi-chuen's U-2C is shot down near Beijing by an SA-2 missile. Larry Chin becomes a U.S. citizen. The Chinese ambassador in Tanzania is implicated in a plot to overthrow Dr. Hastings Banda in Malawi.

1966 Kwame Nkrumah is deposed in a coup while visiting Beijing. The Great Proletarian Cultural Revolution is launched in the PRC by Mao Zedong. The USS *Banner* is harassed by PRC fishing boats in the East China Sea. A New China News Agency (Xinhua) editor, Lau Yvet-sang, defects to Taiwan from Hong Kong. The plutonium reactor at Jinquan goes critical. Four PLA officers walk into India from Tibet and seek asylum.

1967 Two Taiwanese U-2s overfly Lop Nor from Taakhli in Thailand. Captain Huang Jung-bei's U-2C is shot down by an SA-2 missile near Jiaxing. Riots paralyze Hong Kong. An SR-71 photographs the detonation of the Chinese hydrogen bomb. Former prime minister Harold Holt

disappears in Australia while swimming near his home. Pu Yi, the last emperor of China, dies in Beijing after being severely criticized by Red Guards during the Cultural Revolution. PRC State Chairman Liu Shaoqi dies in obscurity in a makeshift prison.

1968 Purge of PRC security organs by Kang Sheng. Mao Zedong denounces the Warsaw Pact invasion of Czechoslovakia. A U.S. Navy Skyraider is shot down over Hainan Island.

1969 Wang Yuncheng and Lu Fu-tain are executed. PRC and Soviet troops clash along the border at the Ussuri River. Liao Ho-shu defects in the Netherlands. The PRC conducts its first underground nuclear test. A D-21 drone overflies Lop Nor and crashes in Siberia.

1970 Larry Chin joins the FBIS headquarters in Rosslyn, Virginia. The PRC puts its first satellite, the *Dong Fang Hong-1*, into orbit. A U.S. Navy SK-5 drone lands accidentally on Hainan. CIA officer Hugh Redmond dies after 19 years' imprisonment in Shanghai.

1971 Lin Biao killed in a plane crash in Mongolia. A nuclear weapons development program begins in Taiwan. U.S. National Security Advisor Henry Kissinger makes a secret trip to Beijing. A PRC mission arrives at the United Nations in New York.

1972 Katrina Leung makes contact with PRC intelligence officers. Taiwanese U-2 overflights terminated by President Richard Nixon, and he visits Beijing in February.

1973 Paul Yu commits suicide on an airliner en route from Taipei to Honolulu. James Lilley opens a CIA station at the U.S. Liaison Office in Beijing, and the PRC opens a liaison office in Washington DC. Greg Chung joins the Rockwell Corporation. Two Taiwanese analysts employed by GCHQ at Little Sai Wan defect to the PRC. Two KGB illegals are arrested in Hong Kong.

1974 A Soviet Mil Mi-4 Border Guard helicopter strays into the PRC, and three crewmen are arrested in the Altai Krai. The PRC seizes the Paracel Islands in the South China Sea from Vietnam. The CIA withdraws from Taoyüan in Taiwan.

1975 Bernard Boursicot rejoins the French Ministry of Foreign Affairs. The PRC's first ELINT satellite launched from Jiuquan. Three Soviet Border Guard helicopter crewmen released by the PRC.

1976 Zhou Enlai dies in January. The death of Mao Zedong in September ends the Cultural Revolution. Hua Guofeng assumes the post of CCP chairman and orchestrates the arrest of the Gang of Four, including Mao's wife, Jiang Qing. Zhou Shaozheng appointed head of the Central Investigation Department.

1977 Hua Guofeng is pushed aside by Deng Xiaoping with support from the PLA.

1978 The Gang of Four put on trial in Beijing by Deng Xiaoping. Thousands of ethnic Chinese expelled from Vietnam. Two atomic-powered remote sensors found on Nanda Devi in the Himalayas.

1979 U.S. diplomatic recognition is transferred from Taipei to Beijing. The PRC attacks and occupies the northern part of Vietnam for 29 days. Deng Xiaoping suppresses the Democracy Wall Movement in Beijing, and dissident Wei Jingsheng is imprisoned. The PRC opens an embassy in Washington DC and consulates in New York and San Francisco. The U.S. moves into its embassy in Beijing, which was constructed under total Chinese control.

1980 Jock Kane complains about poor security at Little Sai Wan. Nikolai Zhang convicted of espionage in the PRC. Last atmospheric nuclear test is conducted by the PRC. Stanislas Lunev is posted to the GRU *rezidentura* in Beijing.

1981 The Federal Bureau of Investigation (FBI) initiates TIGER TRAP, a surveillance operation on an aeronautical engineer, Min Gwo Bao. Yue Zhonglie is convicted of spying for the Soviets.

1982 Larry Chin receives an award in Beijing. TIGER TRAP is extended to Wen Ho Lee. Deng Xioping approves nuclear proliferation policy. GCHQ's base at Little Sai Wan closes down, with operations moved to Chung Hum Kok. Min Gao-Bao resigns from the Lawrence Livermore National Laboratory.

1983 The chief of the Shenyang City Justice Bureau, Hao Guangsheng, defects in Toronto. FBI is granted authority to electronically monitor Larry Wu-tai Chin. The PRC establishes the Ministry of State Security (MSS), the *Guojia Anquanbu*. Chi Mak begins to pass U.S. Navy research documents to the MSS. The PRC contracts to build the El Salam reactor in Algeria.

1984 Henry Liu is murdered in Daly City, California. Da Chuan Zheng is convicted of the illegal export of embargoed radar equipment.

1985 PLANESMAN defects to the United States. Larry Wu-tai Chin is arrested. Greg Chung makes an unreported visit to the PRC. Admiral Wang Hsi-ling of the KMT's National Intelligence Service is convicted of Henry Liu's murder.

1986 Gu Weihao of the PRC's Ministry of Aviation Industry travels to the United States to visit Greg Chung, a Boeing engineer. Roland Shesu Lo is sentenced to 12 years' imprisonment in Beijing for espionage. Hu Yaobang is replaced as the CCP's general secretary by Zhao Ziyang.

1987 Greg Chung passes information through Chi Mak. Two Chinese diplomats are expelled after being caught in an FBI double-agent operation. The Cabinet Office in London establishes an interdepartmental working party to study Chinese espionage. Hou Desheng is arrested in Washington DC. End of martial law in Taiwan. Colonel Chang Hsien-yi compromises Taipei's nuclear bomb project.

1988 Larry Engelmann meets Xu Meihong in Nanjing. The China National Nuclear Corporation is formed.

1989 Hu Yaobang dies in Beijing. In response to demonstrations, Deng Xiaoping imposes martial law. Thousands of Chinese students are massacred in Tiananmen Square, and demonstrators are killed in Chengdu, Sichuan, by the PLA. Hu Simeng is exposed as a source in Berlin for the CIA, MSS, and the East German Hauptverwaltung Aufklärung. Wen Ning is recruited by the FBI as a source inside the PRC consulate in Los Angeles.

1990 A Pakistani nuclear weapon is tested at Lop Nor. A PLAAF MiG-19 lands accidentally at Knivechi near Vladivostock and is released five days later. The CIA learns an M-11 training missile and erector launcher have been supplied to Pakistan by the PRC.

1991 Admiral Wang Hsi-ling is granted clemency and released from prison in Taiwan.

1992 Wu Bin is arrested by U.S. Customs and charged with illegally exporting night-vision goggles to Hong Kong. Diplomat Wen Ning defects from the PRC consulate in Los Angeles. The PRC signs the 1968 nuclear Non-Proliferation Treaty. Iran test fires a Shahab-3 MRBM. North Korea

test fires the Taepo Dong-2 ballistic missile over Japan. Stanislas Lunev defects to the United States.

1993 Amgen discovers an attempt by a Chinese agent to steal a vial of patented drug cultures. North Korea tests the No Dong missile. The PRC sells M-11 road-mobile short-range ballistic missile (SRBM) components to Pakistan.

1994 Chin Peng travels to Australia. Kim Il-sung dies in North Korea and is replaced by his son Kim Jong-il.

1995 The PLA occupies islands claimed by the Philippines in the South China Sea. Two U.S. Defense Intelligence Agency officers are expelled from the PRC for monitoring PLA exercises in southern China. The GCHQ base at Chung Hum Kok is transferred to Geraldton in Western Australia. A technical surveillance operation on the PRC's embassy in Canberra is terminated.

1996 The Economic Espionage Act is passed by the U.S. Congress. Hughes Aircraft and Loral missile technology is stolen.

1997 Hong Kong is returned to the PRC. Death of Deng Xiaoping in Beijing.

1998 Peter Lee admits to selling classified information. Pakistan conducts an underground nuclear test. Won Chong-hwa is recruited by the North Korean State Security Department.

1999 The PLA establishes a signals intercept site in Cuba. The Cox Committee investigates the theft of U.S. neutron bomb technology. The PRC embassy in Belgrade is bombed by accident during a North Atlantic Treaty Organization (NATO) air raid. The Falun Gong movement is banned and persecuted in the PRC after holding a silent vigil in Tiananmen Square. Wen Ho Lee is dismissed from Los Alamos and indicted on 59 felony counts.

2000 The Canadian Security and Intelligence Review Committee criticizes the joint Canadian Security Intelligence Service (CSIS) / Royal Canadian Mounted Police (RCMP) Sidewinder report, which revealed links between Triads and the PRC's intelligence service. Wen Ho Lee pleads guilty to one felony and is sentenced to 10 months' imprisonment.

2001 A U.S. Navy EP-3A Aries II reconnaissance aircraft is damaged in a midair collision and makes an emergency landing on Hainan Island.

2002 Chinese cyber attacks codenamed TITAN RAIN in the United States. The FBI opens a legal attaché's (legat) office in Beijing with responsibility for liaison with the PRC and Mongolia.

2003 Lee Lan and Ge Yuefie are charged with theft from NetLogic Microsystems. Brian Regan is sentenced to life imprisonment after having been arrested at Dulles Airport in August 2001. Special Agent William Liu is appointed the FBI's legat in Beijing.

2004 The PRC puts *Nanosatellite-1* into orbit. The MSS's Li Fengzhi defects in the United States. Computer hackers traced to the PRC attack the U.S. Army's Information Systems Engineering Command at Fort Huachuca, Arizona; the Defense Information Systems Agency in Alexandria, Virginia; the Naval Ocean Systems Center in San Diego; and the Space and Strategic Defense Installation at Huntsville, Alabama.

2005 Chi Mak is arrested in Los Angeles. Chen Yonglin defects in Australia, and Hao Fenging defects to Canada. Zhao Ziyang dies while under house arrest in Beijing. The PRC tests an antisatellite missile. Wen Ning is charged with exporting embargoed technology to the PRC.

2006 Li Fangwei is identified as a weapons proliferator supplying Iran with banned aircraft parts. Former Defense Intelligence Agency (DIA) analyst Ronald Montaperto is convicted of espionage for the PRC. North Korea attempts to conduct an underground nuclear test. Wen Ho Lee awarded \$1.6 million in compensation. The U.S. State Department reports that Chinese intruders have penetrated its computer system. The Pentagon's NIPRNET system is attacked from mainland China.

2007 Zhang Jiyang defects in Ottawa. U.S. State Department official Donald Keyser is convicted of passing secrets to a Taiwanese agent, Isabelle Cheng. A *Song*-class submarine penetrates the USS *Kitty Hawk*'s protective screen while on exercises. Chi Mak is sentenced to 24 years' imprisonment. Laura Wang-Woodford is arrested in San Francisco. Xiadong Sheldon Meng is convicted of exporting fighter training software to the PLA Navy.

2008 A member of British Prime Minister Gordon Brown's entourage is honeytrapped in Beijing. Greg Chung is arrested in California. Won Chong-hwa is arrested in South Korea. Qi Hanson delivers MicroPilot aircraft controls to the PRC. Dr. John Reece Roth is convicted of passing plasma data to the PRC. FirmSpace is indicted on conspiracy charges relating to the

illicit export of carbon fiber. Taiwanese agents Guo Wanjun and Wo Weihan are executed in the PRC for espionage. The United States moves into a new embassy in Beijing.

2009 USNS *Impeccable* is harassed by five PRC boats. Yan Zhu is arrested in New Jersey on charges of software theft. Lu Fu-tain is charged in Oregon with the illegal export of microwave amplifiers. David Yen Lee is arrested in Chicago and charged with the theft of trade secrets. MI5 circulates *The Threat from Chinese Espionage*. Germany expels a diplomat from the Munich consulate for spying on local Uighur refugees.

2010 Google experiences an AURORA cyber attack. The National Security Council downgrades the PRC as a threat to U.S. security. The CIA screens *Extraordinary Fidelity* as a training aid. Glenn Shriver is arrested after attempting to join the CIA. The Xinhua propaganda chief Wan Wuyi is reported to have defected while studying at Oxford University. Death of Andrew Roth in London. Huang Kexue is charged with economic espionage. Colonel Lo Chi-cheng is arrested in Taiwan and charged with espionage.

2011 Wang Qing is arrested in India and deported. Glenn Shriver is sentenced to four years' imprisonment. General Lo Hsien-che is arrested in Taiwan and charged with espionage. American geologist Xue Feng sentenced in Beijing to eight years' imprisonment. Matthieu Tannenbaum is suspended from Renault with two other senior managers. Xian Hongwei and Li Li are indicted in Alexandria, Virginia, on charges of defense export. The U.S. National Counterintelligence Executive identifies the PRC as using proxy systems to conduct cyber-espionage.

Introduction

Although China's intelligence activities may not have been well documented, they can be traced back to the ancient writings of Sun Tzu, and espionage has been a characteristic of Chinese domestic politics and international relations ever since.

The tangled relationship between Taiwan and mainland China has meant that both governments have created alliances on the basis of their mutual hostility, sometimes with unlikely partners, and the adversarial nature of some of those links with third nations can have more to do with their attitude to an opponent than any perceived mutual foreign policy goals or interests. Thus, the Nationalist Party or Kuomintang (KMT), having fought the Japanese, developed close ties with Tokyo in the postwar era, and the Soviet Union, having nurtured the Chinese Communist Party (CCP), would become intensely hostile during the lengthy Sino-Soviet split, just as the United States, having supported anti-Communist guerrillas in Tibet and on the mainland, reversed its course during the administration of Richard Nixon. Equally complicated has been Hong Kong's anomalous role, both as a British colony and then as a Special Administrative Region of the PRC. When it comes to policy made in Beijing, nothing is quite what it seems.

China is an ancient civilization, and there have been many Chinas, from the first dynasties of the Shang and Zhou, through the imperial era to the period of feudalism and warlords, to the dominance of the KMT and finally the Civil War, which led to the creation of the Republic of China (ROC), leaving the mainland under Communist control and called the "People's Republic of China" (PRC).

OVER THE AGES

Following Qin Shi Huangdi, the first emperor of a unified China, who was born in 259 BC, there have been 156 successors, many of them brought to power by rebellion, plots, assassinations, and political maneuvering. Some tried to emulate the perceived success of the Qin state, a proto-totalitarian regime that built the Great Wall and created a vast security apparatus to perpetuate a reign, which lasted a mere 14 years, by conquering its neighbors and rivals, thereby establishing a bureaucracy that exercised near total control over the population in an area that covers much of modern

China, including all the land between the Yangtze and the Yellow rivers. The Qin Empire succumbed to a coup mounted in 208 BC by a minor official, Liu Bang, who founded the Han Dynasty, which would rule the empire for a further 400 years. However, the first secret intelligence institution was probably established by the Empress Wu Chao in AD 625, when a textbook of interrogation techniques was compiled for her very extensive security apparatus, which ruthlessly removed or executed all who threatened her during 45 years of rule.

With a bloody history of war and invasion, culminating in the Manchu establishment of the Qing dynasty in 1644, China's military supremacy reached its zenith under Qianlong, who reigned from 1736 to 1793 and resisted Lord Macartney's blandishments to open the country to foreign trade. There followed the First Opium War in 1839, a conflict that resulted in concessions granted to the European powers, including Hong Kong Island to the British in perpetuity, and, then in 1851, the Taiping Rebellion in which an estimated 70 million Chinese died.

In 1856 comes the Second Opium War, which left Kowloon, opposite the island of Hong Kong, in British hands and foreign embassies established in Peking, marking the final phase of the empire. The 1895 defeat of Emperor Guangxu's imperial army and navy by the Japanese over control of Korea effectively spelled the end of the Manchu Empire, which subsequently suffered the humiliation of the collapse of the Boxer Uprising against foreign intervention in China, backed by the Empress Dowager Cixi.

Much of the Qin emperor's innovations, including a merit-based civil service, would endure until 1912, when Sun Yat-sen's Republic of China was declared, by which time the Han sphere of influence had extended to Vietnam, Burma, Cambodia, and Thailand. With a history of expansionism and resistance to periodic invasion from the north by Mongols, the determinedly centralized Chinese political and cultural system was rooted in authoritarianism.

THE STATE ACTORS

The pages that follow concentrate on the principal players in the two Chinas in what might be described as the drama of international espionage. At center stage in the PRC is the omniscient Ministry of State Security (MSS) and the domestically ubiquitous Ministry of Public Security; while in

Taiwan (ROC), the National Security Bureau fulfills the dual role of internal security and foreign intelligence collection. The other members of the cast include the United States, with branches of the Central Intelligence Agency (CIA), Defense Intelligence Agency (DIA), National Security Agency (NSA), and the Federal Bureau of Investigation (FBI) fully engaged, together with Great Britain's Secret Intelligence Service, managing a station in Beijing, and the Security Service (MI5), represented in Hong Kong where Government Communications Headquarters (GCHQ) previously maintained a large electronic intelligence collection facility throughout the Cold War. In addition, the Soviet KGB and GRU attempted to run operations in Beijing, as did the French Direction Générale de Sécurité Extérieure. All of these organizations, including their forerunners, such as the British Inter-Services Liaison Department (ISLD) and Combined Intelligence Far East (CIFE), the Office of Strategic Services (OSS), and the NKVD were active participants in the region, with the Australian and New Zealand signals intelligence agencies taking supporting roles.

While the Western agencies tended to concentrate their resources on technical collection, relying on aerial reconnaissance flights, remote sensors, and satellites to monitor China's development into a world superpower, Beijing took advantage of its vast diaspora to penetrate overseas targets, acquire embargoed technology, steal proprietary software, and transfer the research needed to save the decades of expensive investment usually associated with the production of thermonuclear weapons, sophisticated missile guidance systems, an aerospace industry, advanced lasers, and an indigenous computer manufacturing capability.

MODERN ESPIONAGE

Although the PRC has long engaged in espionage, relatively little is known about Chinese techniques, methodology, personnel, and organizations in comparison with what the West has learned about other more conventional intelligence agencies that conduct operations across the world. Whereas most intelligence services have suffered damaging defections, the number of MSS professionals who have switched sides is relatively small. And if conditions for clandestine operations in Moscow were challenging during the Cold War, the hostile environment in Beijing has continued to be next to

impossible. Indeed, the Second Chief Directorate of the Komitei Gosudarstvennoi Bezopastnosti (KGB), notorious for maintaining continuous, ubiquitous surveillance on foreigners, could have learned a few lessons from the MSS counterparts who had fewer visitors to follow, with their targets easier to identify, in a capital where all embassies are concentrated inside a single compound, a diplomatic ghetto with just one entrance, making conventional tradecraft virtually redundant.

In spite of these difficulties, the West has learned that the MSS behaves in a very different way to its adversaries and does not rely on clandestine contact, dead-drops, cut-outs, sophisticated communication systems, and the other conventional ways of engaging in espionage. Instead, the MSS prefers a more relaxed, casual approach, often exploiting a social contact to extract information rather than documents and without the usual, incriminating exchange of recognizably classified data. The evidence of a dozen espionage cases suggests that the MSS concentrates on individuals of ethnic Chinese heritage and cultivates them over a long period, sometimes many years, developing a friendship with their individuals. Appeals for technical help will then be made, and though they may only succeed in a tiny number of cases, the results are clearly beneficial to Beijing. The principle appears to be that, if enough targets are asked for help, one or two may respond. The plea, typically to assist “the higher kingdom” and implicitly not to inflict damage on the United States, taking a positive rather than a negative stance, occasionally is rewarded, and gradually an individual, who has perhaps acknowledged the universal nature of scientific knowledge, may be drawn into conduct that would fall into the criminal category, compromising classified information.

Thus, at the outset, the request for assistance may be modest and unthreatening and perhaps calculated to be in the form the target is likely to know and perhaps consider relatively unimportant. The common characteristic is the length of time devoted to such activities; although, the Chinese always take a long view in preference to short-term advantage. Perhaps this is not surprising for a civilization that built 5,000 kilometers of the Great Wall 200 years before the birth of Christ and for a culture that enjoyed whole libraries of printed books decades before Johannes Guttenberg developed a printing press in Europe.

The MSS seems to like working on people with a shared culture, language, and history, and when one considers the disproportionate representation of

scientists of Chinese origin in the American research arena, at a time when only 1 percent of the population in the United States has this ethnic background, the organization's strategy makes practical sense. A graduate student on a visit to mainland China may well have a future in a sensitive area of interest to his PRC counterparts, and a light "pitch" may pay dividends in the future. Nor is the MSS embarrassed by a refusal. Its personnel are nothing if not persistent and will renew a request for assistance as if none had been made previously.

That is not to say that the MSS handlers lack subtlety. One characteristic of their management of cases is their preference for individuals whom they regard as reliable and trustworthy, devoid of the personality flaws that the KGB liked to exploit during the Cold War. Whereas the Soviets were always keen to accommodate the financial demands of their sources, the Chinese regard indebtedness as a poor motive for espionage. The KGB often found itself responding to requests for money from divorcees undergoing a cash crisis or others who had made poor investments and sought to capitalize on their access to classified material, but the MSS prefers to deal with sources who have no such obvious problems. It may be that they are ambitious, but their cooperation is based on a perceived mutual advantage, not exploitation. Any study of Chinese espionage cases reveals that, unlike the Soviets, the MSS does not seek to acquire information by bribery or extortion and indeed rarely even pays for what it receives. In the Chi Mak example in 2005, he admitted that his only reward for more than 20 years of espionage had not been vast riches, nor promises of a numbered bank account in Switzerland, but an assurance that his sister-in-law's ailing mother in Guangzhou would be "taken care of" by his MSS handler, David Pu Pei-liang. However, there have also been a few cases where trusted, long-term sources have been paid handsomely, among them Larry Wu-tai Chin and Katrina Leung.

By concentrating on targets in good financial standing and eschewing those with poor credit ratings, the MSS also neatly avoids individuals who may attract unwanted attention during routine security screenings. Typically, individuals cooperating with the Chinese intelligence services are considered hard working, frugal, and solid citizens, and their usually high standing in the community makes discreet investigation more difficult and often serves to encourage investigators to contemplate the innocence of a quarry instead of working from an assumption of guilt.

Because the Western experience of hostile intelligence operations was accumulated mainly during the Cold War, counterintelligence experts invariably fall back on the Soviet bloc model as the way to monitor an adversary and detect the distinctive patterns of espionage. However, the Chinese have opted for an entirely different strategy and one that often falls below the radar screen of counterintelligence vigilance. The conventional approach during the period of superpower confrontation was to establish an opponent's order of battle, place the identified active intelligence officers under physical and technical surveillance, and then wait for the handlers to lead the watchers to their agents or their operating areas. Once a contact had been spotted, the trick was to catch the person in an illegal act, and this coup would open numerous possibilities, perhaps of running a spy back as a double agent or entrapping the handler.

For decades, this was how the counterintelligence game was played, but it does not work with the Chinese who do not run formal *rezidenturas*, or stations, and do not rely on dead-drops or clandestine meetings. The Chinese espionage model is based on providing a safe environment in which potentially willing participants can be encouraged to contribute helpful information at their own pace. Absent is the more usual pressure to grab material before the source, through his or her own folly, attracts the security authorities. While a Western counterpart will be in a hurry to accomplish a recruitment before a routine rotation elsewhere, the MSS will be content to let nature take its course, sometimes waiting years to seize the right opportunity. In one case in Canada, the Chinese appeared content to leave an agent for 24 years before activating him.

They subscribe to, and practice, the theory that recruitment is a process, not an event. If the West can be said to rely on the sniper's rifle to find precisely the right person to pitch, the Chinese prefer the scattergun, sponsoring thousands of students and scientific delegations, confident that someone of interest will eventually emerge. There are estimated to be 300,000 Chinese undergraduates in the United States alone, with more than 30,000 official groups visiting sensitive sites. While the idea of employing students as agents would strike most Western intelligence officers as a very risky stratagem, the MSS refer to them as *chen di yu* (bottom-sinking fish) and regard them as a useful resource that perhaps one day will reward them with dividends.

Chinese intelligence collection is also markedly different in its reliance on what is termed in the West “natural cover.” The MSS relies heavily on genuine journalists, academics, students, and businessmen, who really are what they seem; whereas for years, the U.S. Central Intelligence Agency (CIA) and its allied agencies have employed its own professional personnel under non-official cover, the so-called NOC. But there is a great difference between the amateur, who collects whatever comes his way and then undergoes a debriefing upon his return home, and the trained officer, who manifests all the usual telltale signs of a career collector, routinely engaging in countersurveillance measures, searching his hotel rooms for covert devices, and applying standard tradecraft. In contrast, the Chinese journalist really is a writer, and the Chinese academic’s credentials are absolutely authentic. Neither needs the expensive backstopping associated with American and British operations. The result is that Chinese students and businessmen both look and behave authentically because their covers really are their occupations, and they have no need of clandestine communications systems or a covert rendezvous on a park bench. Culturally, the Chinese have a huge advantage here as the CIA is banned from employing American clerics and journalists, whereas any Chinese granted permission to travel abroad will know the price may be a relationship with the MSS. As for a ban on occupations, the Chinese spent years developing a Roman Catholic priest with absolutely watertight credentials to act as a contact and courier for Larry Wu-tai Chin. Indeed, considering that one of the MSS’s more recent targets is the Falun Gong movement, the agency can be said to be entirely devoid of religious scruples.

The practice of ensuring their personnel can withstand outside scrutiny also extends to the front companies that the Chinese utilize to collect technology. These firms engage in actual business and are expected to be economically self-sufficient. Indeed, the businessmen in charge of the companies are allowed to make as much personal profit as they are capable of so long as they continue to funnel the needed technology back to the PRC. Since these traders and merchants appear to be legitimate and run genuine firms and not shell companies, their illicit activities are often hard to detect. The American response to this is to bring criminal charges for whatever offenses have been committed, irrespective of whether espionage can be proven. Accordingly, there are plenty of investigations conducted that result in convictions for money laundering, breaches of the Foreign

Corrupt Practices Act, and violations of the export regulations that invariably have an underlying intelligence dimension. Unspoken is the certainty that anyone dealing with a Chinese state-owned enterprise inevitably will have some kind of link to the MSS, another factor that blurs the distinction between espionage and routine commerce.

Another challenge for Western authorities, principally in the United States, France, Australia, Great Britain, and Germany, seeking to engage in business partnerships while protecting themselves from hostile penetration, is the reluctance of many firms to declare incidents of cyber attack or internal fraud for fear of undermining public confidence and company stock values. Plenty of security consultants have an interest in promoting anxieties about the vulnerabilities of the West's computer infrastructure, yet reliable statistics of specific incidents are hard to gather, and victims are reluctant to file reports, even when legally required to do so. Nevertheless, mainland China is consistently identified as being the source of much of the world's malicious software and the origin of concerted hacking and cyber-spying.

Being a totalitarian state, the PRC exercises control over its own population and its visitors. The MSS is naturally suspicious of all tourists, foreign residents, students, and anyone engaged in any kind of research, and this natural antipathy dates back centuries to previous dynasties that for generations closed China to all foreigners and back in more recent times to the privations endured during foreign occupation. The Stalin-like paranoia extends far beyond those who might be approaching the very low threshold of what is termed a "state secret," which could be a bridge, railway line, or manufacturing plant, and includes social contacts that might be deemed as subversive or intended to undermine the Party. Thus, a very large number of potential suspects come to the attention of the MSS, whose functions are considered a priority by the Party, a status reflected in the almost unlimited resources available to the security organs. What a difference when compared to the relative handful of Chinese specialists fluent in Mandarin and Cantonese available to MI5 and the FBI. Furthermore, these two agencies enjoy minimal relative political influence, and their operations and resources are curtailed by budget considerations and other sensitivities. No director-general of MI5 or FBI director has ever sat on, or even attended, cabinet meetings, whereas the minister of state security in Beijing, currently

Geng Huichang, is not just a member of the Central Committee but is a highly influential figure in the overall government structure.

This exalted status is reflected on both social and political levels. MSS personnel are respected within their community and form part of an elite. The same can hardly be said of FBI special agents or their British Security Service counterparts. Although Rudy Guerin claimed that the FBI's China Squad had tripled in size in 2001, the FBI's assistant director for counterintelligence, David Szady, remarked that, although the exact number of FBI manpower devoted to China was classified, he would have welcomed an additional 1,500 special agents. Considering that some 1,900 Chinese diplomats are accredited to the United States, with many more just over the border in Canada, this seems a modest ambition. Keith Riggin, a CIA officer who retired in 2006 after a career spanning 24 years, protested that "if the American people knew the number of officers going against the Chinese, they would be appalled" and cited "frustration" as one of his reasons for leaving the agency.

The arrest of an ethnic Chinese in the United States on espionage charges instantly prompts complaints of racism and racial profiling, and several counterintelligence careers can be seen to have perished in such an adversarial environment. Not so in the PRC, where the detention of students, journalists, and academics is practically routine if not an occupational hazard. A complaint of racism in a Western liberal democracy is considered a serious charge with potential implications up and down the chain of command in any organization. In contrast, ill-disguised contempt for foreigners is a fact of life, as is the openly racist behavior endured daily by African students in the PRC.

The United States in particular has paid a heavy price for the long-time practice of essentially opening its borders to the Chinese without any semblance of reciprocity. Many Chinese students, both privately sponsored (holding F-1 visas) and government-sponsored (J-1), remain in the country after the completion of their studies and act as sources that the PRC can exploit to gather sensitive technology. The Chinese also have been most successful in obtaining the cooperation of first-generation immigrants and their offspring, and by allowing students, business people, and others to remain in the United States, they constantly replenish the most fertile area of their success.

The Beijing authorities do not just hope or expect that Overseas Chinese will cooperate with the motherland but simply assume that immigrants from China will retain their allegiance. After all, they are ethnically Chinese first. The Chinese do not accept that an ethnic Chinese can have an allegiance to any country but to *Zhongguo*, translated literally as the “Middle Kingdom,” for they are, in their minds, the geographical center of the universe and the cultural center of the world.

Thus it can be said that the Chinese approach to intelligence collection and counterintelligence is quite unique, wholly unlike the Western or Soviet model. It may seem to have some very distinct disadvantages, but when one considers the country’s objectives, focused principally on technology transfer, the offensive would appear to be sustained, relentless, and effective.

It may be that gathering intelligence in mainland China is somewhat easier now than during the era of the “bamboo curtain” when little was known about events inside that vast country, and the current regime’s expanded interests, requiring a need to support a burgeoning economy by securing the supply of raw material such as oil and ore from Latin America and Africa, has provided new opportunities to study the MSS. Previously insular and espousing little interest in other countries apart from Albania and North Korea, the PRC now recognizes a demand, driven by modernization and industrialization, to expand its horizons and make new alliances overseas so as to fuel the new economic giant. And, just as in previous centuries, Chinese trade has not been in the form of colonization, but barter and tribute, the modern merchants emphasize their disinterest in local politics and pledge never to interfere in domestic issues, such as respect for human rights. In many countries, such terms look very attractive to the Western competition where, increasingly, there are potentially inhibiting strings attached to the most ostensibly innocuous trade deals. Gone are the days when Western countries or multinational companies could ruthlessly exploit their Third World partners or rely on murky subcontractors to evade minimum standards in pay and conditions. Instant global communications mean that politicians and companies are vulnerable to complaints of any dubious practices, but the Chinese make a virtue out of a policy of noninterference in countries like Tanzania, Somalia, Gabon, Equatorial Guinea, and Zimbabwe, where their activities are not subject to external, independent scrutiny. For regimes reluctant to adopt Western-imposed

values and standards, the Chinese commitment to noninterference amounts to a guarantee that would never be forthcoming from other rival nations and is therefore perceived as mutually beneficial. The Chinese cast a blind eye, and a despotic or corrupt regime remains free to retain some control of its own future, immune to the lobbying of activists and the carping of media critics.

The burgeoning Chinese economy and the need to secure foreign sources of essential raw materials and energy have transformed the country and the Chinese Communist Party from adopting a fundamentally isolationist stance to taking on the role of a world player committed to international trade, globalization, and the Internet. In consequence, those two pillars of the state, the MSS and the People's Liberation Army (PLA), have been obliged to make a significant adjustment. Having previously been preoccupied with domestic security, protection of the country's closed frontiers, and separatist pressures from Tibet and Taiwan, the party has relied on these two organs to play their part in modernization. With the entire military-industrial complex in the hands of the party, it was inevitable that the MSS and the PLA would become immersed in the need to achieve the leadership's new objectives.

For external intelligence analysts, familiar with the symbiotic relationship between the KGB and the Kremlin, the course taken by Beijing looks very novel, as the gray area perceived between intelligence agencies and commercial enterprises seems hard to delineate. However, in the Chinese example, no such distinction can be made, with hundreds of research institutes operating under the PLA's sponsorship while being closely associated with ostensibly independent commercial enterprises. From Beijing's perspective, attempting to make such distinctions is wholly futile, for the party *is* the state, and the MSS and the PLA are committed to the party. And when the party owns, manages, and directs industry, it is entirely logical that other party agencies should be deployed in support of an objective identified as a priority by the leadership.

In this scenario, Deng Xiaoping and Hu Jintao redefined the party's goals, stressing modernization and technology. But, in the absence of fraternal support from Moscow, the development of an indigenous aerospace industry—producing stealth equipment, phased-array radars, photoreconnaissance satellites, computer networks, and sophisticated guided weapons—was not easy to accomplish without the essential building blocks of skilled personnel, integrated circuitry, and advanced research

facilities. Even when the COCOM restrictions on sensitive exports evaporated in 1994, to be replaced by uncoordinated, fragmented, and often unenforced individual bans on specific technologies, Beijing was obliged to resort to subterfuge, and especially to the MSS and PLA, to bridge the gap.

However, the ability of Western analysts to grasp the full nature of challenge varies greatly, and a proposal in October 2009 from the U.S. National Security Council to downgrade the threat posed by the PRC to “Priority 2” was opposed by the director of national intelligence, Admiral Dennis C. Blair, and the CIA director, Leon E. Panetta. The very fact that the White House could have made such a suggestion was a reflection not only of the attitude of Barack Obama’s administration but also of the extent of the debate among analysts studying Beijing.

In a Western context, it would be inconceivable that the CIA could be tasked to steal industrial secrets for Lockheed or that the British Government Communications Headquarters would intercept commercially sensitive conversations for BAE Systems, but in the PRC, the party’s interests are best served by expedient exploitation of MSS’s resources to assist in the need of a particular technical research institute to acquire a special chip or some embargoed item of equipment so it can be reverse-engineered to the benefit of a subordinate manufacturing plant. Since all these entities are part of the state and have a duty to serve the party, the Chinese logic is obvious, even if it is utterly alien to Western practice.

In these circumstances, the Chinese intelligence establishment behaves very differently from its Western counterparts and poses special challenges to counterintelligence analysts who spent a lifetime during the Cold War learning to develop countermeasures appropriate for a Soviet and Warsaw Pact adversary. As can be seen in the pages that follow, the Chinese evolution has been very, very different.

A

AA-2 ATOLL. On 24 September 1954, a major dogfight took place between MiG-17s and **Taiwanese** F-86 Sabres armed with AIM-9B Sidewinder air-to-air heat-seeking missiles. Although 11 MiG-17 Frescos were shot down in the engagement, one managed to return to base, having been hit by a Sidewinder that failed to detonate. The missile was removed from the airframe and delivered to the Toropov design center, where it was studied by Soviet analysts and used to reverse engineer the AA-2 Atoll. *See also* SOVIET UNION.

ACADEMY OF SCIENCES. The prestigious Chinese Academy of Sciences is listed by the U.S.-China Economic and Security Review Commission as a civilian research and development organization that routinely engages in the collection of sensitive technology. *See also* TECHNOLOGY ACQUISITION.

AFGHANISTAN. A neighbor of the People's Republic of China (PRC) and a source of regional instability, Afghanistan is a major focus of Beijing's security and intelligence apparatus, which, having consistently ruled out armed intervention, is anxious to protect a significant state-sponsored economic investment. Major aid projects include the Karakorum Highway, which links **Xinjiang** Province to **Pakistan**, built by the China Road and Bridge Corporation in partnership with Pakistan's National Highway Authority and financed by the Export-Import Bank of China. By 2008, Chinese companies had invested an estimated \$580 million in some 33 different infrastructure improvement schemes that benefited from North Atlantic Treaty Organization (NATO) protection. In addition, the China Metallurgical Group Corporation has also committed itself in 2007 to copper mining at Aynak in Logar Province, south of Kabul, which is intended to employ up to 10,000 Afghans and provide the central government with an income of \$400 million a year. With deposits valued at \$88 billion, the Aynak mine represents the largest foreign investment in Afghanistan's troubled history. Other Chinese interests include partnership between the Afghan Ministry of Communications and the Chinese-owned

companies Huawei and ZTE to install a digital telephone network linking a planned 200,000 subscribers.

Western intelligence analysts presume the **Ministry of State Security (MSS)** is well represented among personnel employed by the PRC's commercial investments in Afghanistan, but the Afghan National Directorate of Security, sponsored and trained by the United States and preoccupied with domestic terrorism, has not registered the MSS as a significant adversary or target.

AGEE, PHILLIP. A **Central Intelligence Agency (CIA)** officer formerly based in Mexico, Agee volunteered his services to the KGB in Mexico City following his divorce and a refusal from the CIA to his request for financial assistance, but he was turned away by a Soviet security officer who did not believe such a scruffy individual could really be an authentic CIA officer. Allegedly, he was also rejected by Colonel Krepkogorsky, a KGB officer in the United States who suspected a provocation. Agee subsequently flew to Cuba where his offer was accepted with alacrity, and he was subsequently handled by Directorate K's Oleg Nichiporenko. Under his guidance, Agee wrote *Inside the Company: A CIA Diary* and disclosed details of the CIA's operations conducted against the PRC.

It is unclear if Agee had direct contact with the Chinese, but given the historically close relationship between the Chinese and their Communist counterparts in Cuba, it is highly likely that the Chinese received information provided by Agee. Later, during the Vietnam War, Agee reportedly volunteered to help in the interrogation of American prisoners of war, and while it is uncertain if his offer was taken up, he definitely had the opportunity to extend the cooperation he had provided the Cubans to the Chinese. Agee is known to have divulged virtually all the information he had at his disposal, and that included details of operations conducted against the Chinese.

The son of a wealthy businessman from Tampa, Florida, Philip Agee studied at Notre Dame University but left the law school before graduating and, in 1956, was drafted into the U.S. Army. While undergoing his military training, he volunteered to join the CIA, and in 1960, he was sent on his first overseas assignment, under diplomatic cover to Ecuador and then Uruguay, during which time he married and had two sons. In 1967, having returned to Washington DC, he was sent to Mexico City, where he began an

affair with an American divorcée with strong Leftist political sympathies, and under her influence, he resigned from the CIA in the autumn of 1968 but remained in Mexico, working for a local company. In early 1970, more than a year after he had left the CIA, Agee started work on the book that was to make him notorious.

Agee acquired a Nicaraguan passport, which he used to maintain his residency in Hamburg and later to enter Canada and slip back into the United States, before settling in Cuba to run a travel agency. He died in Havana in February 2008 following a medical operation for a perforated ulcer.

AIRBORNE COLLECTION. Throughout the postwar and Cold War eras, mainland China has been the target of airborne intelligence collection operations conducted by aircraft operating from **Taiwan** and from U.S. Air Force bases in **Japan**. From 1950, photo reconnaissance missions were undertaken by the 91st Strategic Reconnaissance Wing (SRW) from Yokota, Japan, flying RB-29 Superfortresses equipped with the K-30 100-inch focal plane camera designed to capture imagery obliquely, and one flew over **Shanghai** on 25 August 1951. Electronic and signals intelligence flights were also undertaken by a 91st SRW detachment of RB-45C Tornados. When the **U-2** and then the SR-71 **Blackbird** high altitude aircraft became operational, they also participated in clandestine overflights. *See also CIVIL AIR TRANSPORT (CAT); UNITED STATES OF AMERICA (USA).*

ALBANIA. The trenchant criticism of Josef Stalin by Nikita Khrushchev at the 20th Congress of the Communist Party of the **Soviet Union** (CPSU) held in Moscow in February 1956 served to alienate the Communist leadership in both the People's Republic of China (PRC) and Albania. Khrushchev's secret speech, which quickly leaked to Western intelligence analysts, caused deep resentment in Tirana and Beijing, where Enver Hoxha and **Mao Zedong** felt considerable loyalty to the Soviet dictator.

For 19 months, Tirana came under intense pressure from the Kremlin to adopt Khrushchev's new policy, and some discreet economic sanctions were applied, such as a restriction on Soviet travel to Albania, the withdrawal in August of East German technicians, and the hasty closure of the Pashaliman Red Banner Fleet naval base at Vlorë, leaving behind four *Whiskey*-class diesel-electrics. Khrushchev's original donation, of 12 submarines, had

been intended to put strategic pressure on the southern flank of the North Atlantic Treaty Organization (NATO), but that policy had to be abandoned.

However, as the Eastern Bloc advisers departed, they were replaced by personnel from the People's Republic of China (PRC), which supplied Albania's navy with 45 *Type 025 Huchuan*-class fast motor torpedo boats armed with up to four 533 mm torpedoes and some *Shanghai*-class coastal antisubmarine warfare patrol vessels. The **People's Liberation Army** Navy also took over the management of the submarines, but they were rarely operational up until their official decommissioning in 1998.

An increasingly stubborn and paranoid Hoxha came to fear a Moscow-inspired uprising or even a coup d'état, suspecting that Khrushchev was attempting to regain Josip Broz Tito by offering him the chance to absorb Albania into a greater Yugoslavia. Hoxha's rift with Moscow offered the Chinese an opportunity to exercise influence in the Balkans and provide a convenient military and intelligence base in Europe at a time when the mainland was effectively closed to Europeans and travel overseas by Chinese officials was very unusual. Although Albania effectively became the PRC's surrogate client state, there is no evidence that, at a time when the **Ministry of Public Security** was preoccupied with domestic security issues, the opportunity was taken to establish wider intelligence networks in Europe.

Relations between Hoxha and the Kremlin continued to decline until October 1961, when Khrushchev made a speech at the 22nd CPSU Congress, criticizing Albania, which was an undisguised and unexpected attack on Beijing, prompting the Chinese delegation, led by **Zhou Enlai**, to return home prematurely. The dramatic walkout, which included Tao Zhu, the influential Guangdong first secretary, took place at a moment of economic crisis in the PRC, along with the threat of food shortages, crop failure, and mass starvation, when Tao had privately advocated reaching an accommodation with the Soviets for reasons of expediency, despite differences of opinion over Yugoslavia, Laos, and Albania. This view was not shared by two other more militant members of the delegation, **Kang Sheng** and Peng Zhen. Kang had already criticized Khrushchev at a Warsaw Pact meeting early in 1960, and there had been other manifestations of Mao's unwillingness to accept Khrushchev's leadership of the international Communist movement or to adopt the increasingly liberal Soviet interpretation of Marxism-Leninism.

Both sides of the dispute adopted the tiny state of Albania as a surrogate, leaving support or criticism of Tirana as implicit attacks on the leadership in Beijing and Moscow; although, the true depth of the schism would not become apparent until the end of 1961, when the Chinese republished, in mid-November, Hoxha's accusations of "anti-Marxist conduct," of "lies, pressure, threats, slanders and inventions," of "opportunism," "revisionism," and "treachery," made nine days earlier on the anniversary of the Bolshevik Revolution. To reinforce the message, the Chinese sent Hoxha a message of congratulation on the Albanian Party's 20th anniversary. The Kremlin then broke off diplomatic relations with Tirana in early December, and the TASS news agency circulated a comprehensive critique of the Albanian ideology, which had previously been published in the theoretical journal *Kommunist*. In February 1962, at the Albanian Party's Fourth Congress, there were defiant attacks on the "revisionists," predicting that an economic blockade would fail because "socialist Albania is not alone." As predicted, in that same month, the PRC signed an agreement to provide equipment and loans to build 25 chemical, metallurgical, and power plants, worth 112.5 million rubles, amounting to much the same aid that had been received from Moscow over the past four years. The divide became more apparent when Hoxha failed to attend the Warsaw Pact meetings in Moscow in March and August and stayed away from the 40th anniversary celebrations of the Czech Party held in Prague in May. Meanwhile, the PRC gained influence in Tirana and became a major purchaser for the country's sole strategic export of chromium.

Hoxha's relationship with Moscow was never restored, leaving Tirana as a strange and unique Chinese ideological outpost in Europe, albeit isolated in the Balkans and surrounded by the Sigurimi, Hoxha's xenophobic security apparatus. The PRC's ambitions to extend its influence further from Tirana never materialized; although, Albania played a significant role in assisting Beijing to accomplish a key foreign policy objective: membership in the United Nations in 1971. Then, following President Richard Nixon's visit to Beijing, interpreted by Hoxha as an act of betrayal, the Sino-Albanian relationship soured, deteriorating further (when Tito accepted an invitation of the PRC in September 1977) until July 1978, when the PRC terminated all aid programs.

AMERASIA. In August 1945, Philip Jaffe, the editor of *Amerasia*, a fortnightly periodical devoted to American policy in the Far East, was the

subject of an urgent investigation conducted by the **Office of Strategic Services (OSS)** following the leakage of classified information published in the January 1945 edition. An article entitled “British Imperial Policy in Asia” drew on a secret report written by OSS’s Southeast Asia chief, Kenneth Wells, and after a complaint from the British, OSS’s security division conducted a covert search in March of *Amerasia*’s editorial offices in New York, an operation that proved that Jaffe had retained thousands of official documents, and in June, Jaffe and his coeditor Kate Mitchell were arrested, together with a U.S. Naval Intelligence officer, Andrew Roth, and two State Department officials, **John Service** and Emmanuel Larsen, and charged with conspiracy to commit espionage. Jaffe pleaded guilty and received a fine and a suspended sentence, but although indicted, charges against his codefendants were dropped when they became aware that they had been the subject of illegal searches and wiretaps.

Concerned that the legal principle of “the fruit of the poisoned tree” would compromise any prosecution, the case was abandoned; although, many commentators believed influence had been exercised to avoid political embarrassment, allegations that were later pursued by the Congressional Tydings Committee. At the time, the **Federal Bureau of Investigation (FBI)** believed that the *Amerasia* case had been an example of Jaffe and other Communist sympathizers attempting to exercise influence in favor of the China lobby, but later study of the VENONA decrypts revealed that one of his contacts, Joseph M. Bernstein, was an active Soviet illegal codenamed MARQUIS, which put an altogether more sinister interpretation of the entire episode and on the motives of Service and Roth who had supplied Jaffe with the secret documents.

Bernstein only came under suspicion as a Soviet spy in 1949, when another mole, Judith Coplon, was asked to report from her section in the Department of Justice any interest in him from the FBI. Born in Connecticut and educated at Yale and the Sorbonne, Bernstein was a gifted linguist and traveled widely in Europe, working for a time as a newspaper reporter in Bucharest, before he returned to the United States in 1938. He then worked for Julio Álvarez de Vayo, formerly the foreign minister of republican Spain, and then for the Czech journalist Otto Katz, helping him write *J'Accuse* in 1940 under the pen name André Simon. Pretending to be a well-informed Frenchman who could not reveal his true identity because his family lived under the Nazi occupation, Katz’s bestseller was not much

more than a tract of Communist propaganda based on newspaper research assembled by Bernstein.

During the war, Bernstein attempted to obtain a government job but was rejected because he omitted much of his prewar career on his application, so the Civil Service Commission branded him lacking "loyalty or morality." In 1946, he attracted the FBI's attention when he was spotted meeting another espionage suspect, Mary Jane Keeney. A single VENONA text from the GRU *rezident* in New York, Pavel Mikhailov, dated 16 August 1944 and attributed to Bernstein, contained details of conversations held between **Chiang Kai-shek** and General "Vinegar Joe" Stilwell in China, sourced to Thomas A. Bisson.

1. Information of MARQUIS [Joseph Bernstein]:

1. After unsuccessful conversations with the Communist party about the role of the 8th Army, CHIANG KAI-SHEK sent an extra five divisions to strengthen the army blockading the SHENSI-KANSU-NINSIA areas (ARTHUR's [Thomas Bisson] information).
2. For a while in government circles the question of sending their representatives for direct contact with the government of the areas indicated was urgently discussed. This intention is explained by the desire of the American command to establish air bases on the territory of those regions.
3. In the Lend-Lease Division of the War Department among the commissioned personnel there is increasing resistance to fulfilling shipments for the USSR (particularly in connection with the Red Army line). The most vehement advocate of curtailing shipments is Major A. PEABODY (information of RHODES, and employee of the Division and an old acquaintance of FARLEY).
4. Military circles are also resisting Lend-Lease consignments to the Chinese government, insisting along with this on increasing consignments to General STILWELL (the same source).

2. Information of SMITH [Leonard Mins]:

1. Beginning on 13th August the Russian Division of the O.S.S. has been working night and day on the compilation of some kind of urgent report (SMITH could not find out the details—he supposes the report is being for ROOSEVELT's conference with CHURCHILL).

Never charged with espionage, Bernstein was subpoenaed to give evidence to a grand jury in 1953 but, nevertheless, continued to contribute articles to Communist Party of the United States of America (CPUSA) publications until his death in 1975.

The other VENONA evidence consisted of three messages sent by Mikhailov to Moscow. Two were very fragmented, but the text dated 16

June 1943 was explicit and served to incriminate Bernstein and one of his sources, Thomas Bisson.

1. MARQUIS [Joseph Bernstein] has established friendly relations with T. A. Bisson (in future ARTHUR) who has recently left BEW [Board of Economic Warfare]; he is now working in the Institute of Pacific Relations and in the editorial offices of MARQUIS's periodical. ARTHUR is evidently well informed and has agents in government institutions.
2. ARTHUR passed to MARQUIS, so that as his colleague in the editorial office he might get acquainted with them, copies of four documents:
 1. his own report for BEW with his views on working out a plan for shipments of American troops to China;
 2. a report by the Chinese embassy in Washington to its government in China about the dimensions and means of trade between the Japanese in the occupied territories and Chinese industrialists in free China territory;
 3. a brief BEW report of April 1943 on a general evaluation of the forces of the sides of the Soviet-German front and the prospects of the German summer offensive;
 4. a report by the American consul in Vladivostok, WARD, on the economic and political situation in the Vladivostok area.
3. The reports are in translated form. We will pass on valuable points by telegraph.
4. A check on ARTHUR's personal connections will be undertaken on the spot. At the same time make use of the Centre's opportunities for checking.

Like *China Today*, *Amerasia* was published by the **China Aid Council**, a CPUSA front, but the extent to which it was also engaged in espionage remains moot. Jaffe came to believe that he had been tricked into reaching a plea bargain with the authorities, and Andrew Roth fled abroad to begin a new career as a journalist in London, never to return to the United States. Roth died in July 2010.

AMGEN. In 1993, the Amgen biotechnology company, based in Thousand Oaks, California, discovered that a Chinese agent had penetrated the company and had attempted to steal a vial of patented cell cultures for EpoGen, a drug used for treating anemia worth \$1.2 billion in annual sales. An investigation conducted internally revealed that the suspect had made more than 70 calls to the People's Republic of China and had used

intermediaries to offer the drug, used in kidney dialysis, for sale. Caught as he entered a laboratory illicitly, the suspect confessed and was fired. As no criminal offense had been committed, the matter never came before the courts. *See also TECHNOLOGY ACQUISITION.*

ANUBIS. Ning Wen, given the codename ANUBIS by the **Federal Bureau of Investigation (FBI)**, was a diplomat who worked at the People's Republic of China (PRC) consulate in San Francisco from 1986 and then in Los Angeles from 1988 as the science and technology attaché.

Born in **Shanghai** in 1949, Wen was educated at Tsinghua University and studied as a graduate student at Berkeley, earning a PhD in engineering, having married Lin Hailin. In 1989, apparently disillusioned by the Tiananmen Square massacre, Ning Wen was recruited by the FBI's Steve Johnson and kept him supplied with information until he defected in March 1992, when he was scheduled to return to the PRC. He was then accommodated in an FBI safe house in the San Fernando Valley until he was resettled, with his wife and daughter, in Manitowoc, Wisconsin. There he was handled by the FBI's Melvin Fuqia, who was unaware that, as well as working for a local manufacturer, the Manitowoc Company, the defector had set up his own firm, Wen Enterprises, which had a thriving business buying embargoed computer chips and reselling them to Beijing Rich Linscience Electronics, an importer run by Qu Jianguo and his wife Wang Ruoling. The suspicious nature of these sales was reported to the U.S. Department of Commerce in 2001, a year after Wen had acquired American citizenship and had been posted by his employer to Hangzhou to manage the Manitowoc Company's refrigeration plant. According to the tip, Wen's consignments were destined for the 54th Research Institute, a well-known front for the **People's Liberation Army**.

An investigation was launched, and in September 2004, Wen and his wife were arrested on the day Qu Jianguo and his wife arrived in Wisconsin from Beijing to stay with them. In May 2005, Qu pleaded guilty to one charge of conspiring to export electronics without the required license and was fined \$2,000 and 46 months' imprisonment. His wife received 6 months and a \$1,500 fine for deliberately undervaluing chips to evade export controls. Lin Hailin pleaded guilty and was sentenced to 42 months' imprisonment and a \$50,000 fine, while her husband went to trial, was found guilty, and sent, in January 2006, to the minimum security federal prison at Duluth for

5 years and fined \$50,000. *See also* FOURTH DEPARTMENT; MINISTRY OF ELECTRONIC INDUSTRIES.

ARMED FORCES SECURITY AGENCY (AFSA). The principal American cryptographic organization before and during the **Korean War**, having been created in May 1949, the AFSA achieved considerable success in reading **North Korean** encrypted communications, but after the armistice in July 1953, the traffic available for interception reduced dramatically as the enemy switched to landlines, and the newly created **National Security Agency (NSA)**, established in November 1952, reduced its coverage of the region, transferring its limited resources to Soviet targets.

The AFSA monitored plaintext transmissions and employed signals analysis techniques to build an accurate order of battle for the **People's Liberation Army (PLA)** and report, from July 1950, a growing concentration of troops in Manchuria. Within two months, six of the nine field armies that would join the war were identified, and there were other clues. Intercepts showed that ferries at Anshan were reserved for military use, and the PLA was ordering maps of Korea in large quantities. Eventually, on 16 October, the 372nd Regiment, under radio silence, crossed the Yalu River and engaged United Nations forces. The AFSA was the only Allied intelligence agency to accurately predict the People's Republic of China's (PRC) intervention.

Prior to the Chinese entry into the conflict on 16 October 1950, the AFSA relied upon diplomatic reporting from the Burmese and Indian embassies in Beijing for political information about the PRC's intentions, apparently shared with selected foreign ambassadors by **Zhou Enlai**. In one example, on 25 September 1950, Dr. Kavalam Madhava Panikkar informed New Delhi that the Chinese intended to deploy Chinese troops in Korea if United Nations forces advanced beyond the 38th parallel. Even though the AFSA had monitored PLA movements from **Shanghai** toward Manchuria for some weeks, analysts at Arlington Hall failed to make the right interpretation, and the arrival of 260,000 infantrymen of the 42nd Army over the Yalu River came as a surprise to the remainder of the U.S. and Allied intelligence community.

Some limited NSA work on Chinese signals continued from Okinawa, with a young New Yorker, Milton Zaslow, concentrating on the PRC's Ministry of Railways, a useful window on the country's transport and

logistical infrastructure. After November 1950, when regular PLA divisions were advancing toward Seoul, the AFSA planned to establish intercept stations at Sinanju to cover North Korean traffic and one in Pyongyang to concentrate on Chinese and Soviet communications. The deteriorating military situation forced the AFSA to cancel any deployment to Sinanju and withdraw the entire detachment to Pyongyang, operating under 15th Radio Squadron Mobile (RSM) cover. By February, the AFSA was picking up plenty of tactical Chinese voice channels, and to exploit this source, a Nationalist Chinese general in Tokyo was persuaded to recruit native speakers from **Taiwan** for the Army Security Agency (ASA), where they were employed on low-level voice intercept (LLVI) as civilians but paid officers' salaries.

By the end of hostilities, the ASA had expanded its operations, usually conducted close to the frontline, to 22 LLVI stations, which produced the overwhelming majority of communications intelligence during the conflict. One unexpected bonus was the discovery, in September 1952, that sound detection systems, designed to warn of the approach of enemy troops, were picking up Chinese telephone conversations transmitted on tactical landlines. This accidental breakthrough was exploited by the ASA and the 25th Infantry Division, deploying small teams of linguists and analysts to LLVI units. The resulting information was both timely and accurate and enabled local commanders to bring down artillery barrages and air strikes whenever the intelligence indicated a concentration of enemy troops. The AFSA also developed a working relationship with **South Korea's** embryonic military cryptographic organization and shared information using the BACCHUS electromechanical cipher system and DIANA one-time pads.

With the AFSA concentrating on Chinese signals, the AFSA achieved considerable success with traffic analysis and gradually developed an accurate order of battle for the entire People's Volunteer Army (PVA) and, by monitoring its radio nets, predicted the offensive of 15 July 1953, which resulted in a significant defeat for the 46th Army. It also made a significant contribution to the battle for the Pusan perimeter. According to the NSA's official history, "in the first month of the war the AFSA read more than one third of all North Korean cipher messages received, and by December AFSA was reading more than 90 percent."

Following a review of what was perceived to be the AFSA's poor performance by the Brownell Committee, the organization was replaced in November 1952 by the National Security Agency. *See also* AIRBORNE COLLECTION; UNITED STATES OF AMERICA (USA).

ARNOLD, JOHN. On 12 January 1953, a United States Air Force B-29 of the 581st Squadron was illuminated by radar-guided searchlights and then shot down by Chinese MiG-15s from Antung airfield while on a night mission to drop an agent over Liaoning Province. Of the aircrew, 3 were killed, and 11 were taken prisoner, including the pilot, Colonel John Arnold. They were tried on charges of espionage, their cover story of a leaflet drop having been disbelieved, and in November 1954, Radio Beijing announced their conviction. They were freed in August 1955 in Kowloon as the Geneva Conference on Indochina opened. *See also* TROPIC.

AUSTRALIA. From the end of World War II, Australian security and intelligence agencies have regarded China as a significant regional target for collection, with the Defence Signals Directorate taking the lead in collaborating with Allied communications intercept sites in **Hong Kong** and Singapore. In addition, the Australian Security Intelligence Organisation (ASIO) monitors the diplomatic missions of the People's Republic of China (PRC) and occasionally attracts a well-informed asylum seeker. These defectors, usually regarded as reliable in providing local insights into the activities of the ubiquitous **Ministry of State Security (MSS)**, enable ASIO to maintain a watch on the PRC's efforts to exercise influence over the increasing Asian immigrant community. ASIO has assessed local MSS personnel as being more interested in supporters of **Taiwan**, **Tibet**, **Falun Gong**, and the democracy movement than in engaging in conventional espionage against Australian interests. *See also* CHEN YONGLIN; CYBER ESPIONAGE; INDUSTRIAL ESPIONAGE; RIO TINTO ZINC (RTZ).

AUTUMN ORCHID. The **Second Department** operation codenamed AUTUMN ORCHID was responsible for collecting intelligence and monitoring political developments in **Hong Kong** and **Macao** before the hand over of the territories by **Great Britain** and Portugal.

AVOCADO. Codename for precautions taken to protect U.S. computer systems against cyber attacks originating in the People's Republic of China

(PRC), AVOCADO was introduced in November 2008 following a series of intrusions traced to computers located in the PRC. Among the targets has been the Pentagon's Non-secure Internet Protocol Router Network (NIPRNET), which, in August 2006, lost 20 terabytes of data. Three months later, the U.S. Naval War College closed down its internal systems for two weeks after Chinese hackers had penetrated them. Then in June 2007, the Department of Defense took 1,500 terminals offline when the secretary of defense's private office was targeted. Soon afterward, in October, some 1,100 members of staff at the Oak Ridge National Laboratory received suspicious e-mails containing a malicious attachment that a few opened, thereby contaminating a database at the nuclear weapons facility. Other sites that have attracted attacks are the White House's internal information network, which was hit in November 2008, and the National Aeronautics and Space Administration (NASA) shuttle support systems at the Kennedy Space Center and the Goddard Space Flight Center. *See also* INFORMATION WARFARE; INFORMATION WARFARE MILITIA; TITAN RAIN.

B

BANDA, DR. HASTINGS. In 1965, a plot to assassinate Dr. Hastings Banda, the autocratic ruler of Malawi, was exposed, and the People's Republic of China's ambassador to Tanzania was implicated. Previously Nyasaland, and part of the Central African Federation, Malawi's security had been MI5's responsibility, but when the federation was dismantled in 1964, Banda had declined MI5's offer to have the security liaison officer (SLO) in Salisbury accredited in Blantyre too but accepted an SLO in Zambia.

Malawi had received independence from **Great Britain** in July 1964, but almost immediately, Banda, who had been the country's prime minister since February 1963, was challenged by four cabinet ministers, whom he promptly dismissed. They fled the country, and in July 1966, Banda was the only candidate in the newly declared republic's presidential election. He remained president for life until he was removed from office in a 1993 referendum. He died in November 1997, aged 101.

BANNER, USS. A U.S. National Security Agency signals intelligence platform, the USS *Banner* undertook regular patrols off the coast of the Chinese mainland until November 1966, when the ship was the subject of intensive harassment from Chinese fishing vessels. At only 176 feet long, the *Banner* had been operational for only a year when it was deployed to intercept Chinese traffic in the East China Sea off Shanghai.

BEIJING ELECTRONIC SPECIALIST SCHOOL. Technicians destined for the **Ministry of State Security (MSS)** invariably undergo training at the Beijing Electronic Specialist School before graduating as technical support officers for the MSS Investigation Department or as specialists in classified communications.

BEIJING INSTITUTE OF INTERNATIONAL RELATIONS (BIIR). The Beijing Institute of International Relations (*Guoji Guanxi Xueyuan*) has long been associated with the **Ministry of State Security (MSS)** and has been described as a "School of Spies." Subordinate to the **China Institutes of Contemporary International Relations**, with which it shares its academic staff, the BIIR prepares students for international assignments,

some with MSS sponsorship but others for the Foreign Ministry and news organizations reporting business and international affairs. The BIIR's relationship with the MSS is intended to be covert, and no documents circulate internally that suggest the BIIR is anything other than a legitimate educational facility, but in reality, it prepares training manuals, offers intelligence-related courses, and conducts external conferences attended only by MSS staff.

BEJUCAL. In 1999, the People's Republic of China (PRC) established a signals intelligence station at Bejucal, south of Havana, Cuba, with several satellite radomes that U.S. intelligence agencies assessed could be deployed to intercept American military and civilian communications. At a second site, northeast of Santiago de Cuba, the PLC built another facility, and reportedly China also provided Fidel Castro's regime with sophisticated antennas to block Radio Martí broadcasts.

BERGERSEN, GREGG W. A weapons systems policy analyst employed by the Defense Security Cooperation Agency, the Department of Defense agency responsible for supervising the sale of defense equipment to foreign buyers, Gregg Bergersen was arrested in February 2008 and charged with passing classified information to **Tai Shen Kuo**, a **Taiwanese** with a furniture manufacturing business in New Orleans.

Apparently the victim of a classic Chinese "false flag" operation, Bergersen was led to believe that Kuo was working for Taiwan when in fact he had been recruited by a **Ministry of State Security** contact in Guangzhou. Accordingly, he supplied Kuo with information and documents that were supposedly intended to assist him in developing defense exports to Taiwan. Among the items passed were details of the *Po Sheng* (Broad Victory) project, which was designed to upgrade existing Taiwanese command-and-control systems; blueprints of the Defense Department's Global Information Grid communications network; and pages of the secret 2007 Javits report, which listed Defense Security Cooperation Agency sales planned over the next five years. In July 2008, Bergersen was sentenced to 57 months' imprisonment. *See also* UNITED STATES OF AMERICA (USA).

BLACK BAT SQUADRON. The Black Bat Squadron (*hei bianfu zhongdui*) was the name applied to the **Taiwan** Air Force's 34th Squadron,

which was equipped by the U.S. **Central Intelligence Agency (CIA)** with reconnaissance aircraft and Taiwanese pilots at the height of the Cold War between 1953 and 1967. The squadron routinely overflew the mainland to drop agents and collect signals intelligence.

The squadron was supplied with the Douglas A-26C/B-26C, P2V-7/RB-69As, C-54s, C-123, C-130, the P-3A armed with Sidewinder air-to-air missiles, and the unarmed B-17G. Their mission was to fly at low altitude to evade hostile radar and air interception, while the P-3A was restricted to international airspace, at least 40 miles off the coast, to monitor signals traffic. Most flights took place at night from Hsinchu in northern Taiwan, earning the squadron its black bat symbol.

The squadron flew 838 missions with a loss of 148 crew, or two-thirds of the original squadron's strength, and 15 aircraft. Some crewmen were captured in mainland China and eventually returned to Taiwan, and the unit's last overflight took place on 25 January 1967. Nevertheless, the Black Bats remained operational and conducted missions over Vietnam, participating between 1971 and 1972 in the CIA's MAIN STREET project, which monitored North Vietnamese communications.

In March 2010, the ashes of five missing aircrew were interred at the Martyr's Shrine near Taipei.

BLACKBIRD. From January 1966, the Lockheed SR-71 Blackbird was the principal airborne platform deployed along the periphery of mainland Chinese airspace. This astonishing aircraft, 107 feet long and 56 feet wide, built mainly of a heat-resistant titanium alloy, flew at a speed of up to 2,600 mph at an altitude of over 100,000 feet and during 20 years of operational service proved invulnerable to attack, despite more than 1,000 attempts, most of them during the Vietnam War.

Equipped with long-range sensors and an oblique camera with a 30-inch focal length, the SR-71 produced an ultra-thin 10,500-foot Kodak film strip containing 1,600 frames with a ground resolution of 12 inches. Each frame measured 73.3 inches by 4.5 inches, covering 72 nautical miles and giving a panoramic view of the ground below. In addition, the Blackbird carried side-looking airborne synthetic aperture radar capable of collecting imagery from between 10 and 80 miles away in any weather, with a ground resolution of 10 feet. When configured for signals intelligence collection, the aircraft could hoover up traffic from a radius of 390 nautical miles.

Operated by the 9th Strategic Reconnaissance Wing at Beale Air Force Base near Marysville, California, but deployed to Kadena on Okinawa, Japan, the Blackbird, of which 32 were built, made a major contribution to intelligence collection operations conducted against mainland China, often without infringing the country's airspace. In June 1967, when the first hydrogen bomb was tested at Lop Nor, the event was photographed by an SR-71.

Almost as soon as SR-71 flights were detected, the **People's Liberation Army** began researching countermeasures, concentrating on advanced laser weapons developed at the China **Academy of Sciences' Shanghai** Institute of Optics and Fine Mechanics, where laser nuclear fusion was studied by Deng Ximing and an alternative weapon effective at high altitude was pursued by Wang Zhijiang. However, by the time the aircraft was withdrawn from operations in 1998, no SR-71 had ever been lost to hostile action; although, 12 crashed in accidents. *See also AIRBORNE COLLECTION; SENIOR BOWL.*

BLACK CAT SQUADRON. Taiwan's Air Force's 35th Reconnaissance Squadron was known as the Black Cats (*hei mao zhongdui*) and flew a total of 102 U-2 surveillance flights over the mainland between January 1962 and February 1972, while purporting to be undertaking high-altitude weather research.

Some 26 Taiwanese pilots completed training in the **United States** and completed 220 missions, some over **North Korea** and North Vietnam. Altogether, five U-2 aircraft were shot down over the mainland, with three aircrew killed and two taken prisoner. Another pilot was killed while flying a mission off China's coast, and a further six were killed in training accidents that claimed seven aircraft. The flights were terminated shortly after President Richard Nixon's visit to Beijing in February 1972.

BOEING 767-300ER. In September 2002, technicians from the People's Republic of China (PRC) discovered 27 listening devices installed in a Boeing 767-300ER that had been ordered by the China Aviation Supplies Import and Export Corporation as President Jiang Zemin's personal aircraft and delivered the previous month. The plane, at a cost of \$120 million, included a large bedroom suite with a shower room and sitting area complete with a large television. The miniaturized, satellite-controlled equipment had been installed while the aircraft was undergoing a \$15

million custom refit in San Antonio, Texas, by Dee Howard Aircraft Maintenance, Gore Design Completions, Rockwell Collins, and Avitra Aviation Services, supervised by 75 PRC security officials.

The investigation into how the Chinese found the sophisticated hardware, so quickly retrieved from the presidential bathroom and bedroom, led to a leak enquiry, which would implicate a Los Angeles-based agent of the **Ministry of State Security**, Katrina Leung. The subsequent mole hunt, codenamed **PARLOR MAID** by the **Federal Bureau of Investigation (FBI)**, would conclude that Leung had compromised her FBI handlers and passed classified information to Beijing. *See also AIRBORNE COLLECTION; UNITED STATES OF AMERICA (USA).*

BOURSICOT, BERNARD. A French diplomatic service officer, Bernard Boursicot was identified by a defector, **Yu Qiangsheng**, as the victim of a bizarre **honeytrap** in Beijing, where he had been posted to the French embassy in 1964, at the age of 20, as an accountant and had formed a relationship with an actor, Shi Peipu, a male impersonator who later claimed to have borne him a child. She said the baby boy, Bertrand, had been sent to live with relatives in the north so as to avoid persecution during the **Cultural Revolution**. To maintain the illicit relationship, Boursicot was persuaded to bring embassy papers to Shi Peipu's home, where they were copied by **Ministry of State Security** personnel. He was eventually introduced to the child in 1973 while on a visit to the People's Republic of China, having resigned from the foreign service the previous year.

In 1975, Boursicot rejoined the foreign service and was posted to the consulate in New Orleans and then was transferred to the French embassy in Ulan Bator, Mongolia, where he resumed his espionage so he could continue his affair with Shi Peipu. Eventually, he brought both to Paris in 1983, and Shi Peipu found work as an opera singer.

When Yu identified Boursicot, he was placed under observation by the Direction de la Surveillance du Territoire and found to be living with his son and the actress, who actually turned out to be a man. Under interrogation, he admitted that the child had been bought from a family of Uighurs, an ethnic group from northeast China with Caucasian features. Boursicot, whose strange story was to become the subject of a book, *Liaison*, a play, *M. Butterfly*, and a movie, was sentenced in May 1986 to six years' imprisonment but was released after having served four years.

See also DIRECTION GÉNÉRALE DE LA SÉCURITÉ EXTÉRIEURE (DGSE).

BOXER UPRISING. The first modern example of foreign intelligence collection in China, the Boxer Uprising of 1899 was suppressed by a large international force, which relied on information supplied by missionaries, mining engineers, and businessmen working in the north of the country. The U.S. forces, deployed from the Philippines and led by Admiral Adna Chaffee, a veteran of the American Civil War and the American Indian Wars, relieved the siege of Peking by entering the city through a weakly defended route identified by a network of agents. Because of a perceived lack of detailed knowledge of the Chinese military, Ralph Van Deman, one of the first graduates of the U.S. Army War College, began a series of visits in 1906 to sketch Peking's fortifications and defenses. Upon his return to Washington DC, having been withdrawn because of protests over his activities, Van Deman was appointed head of the U.S. General Staff's mapping section and later was responsible for the creation of a military intelligence branch within the War Department.

BRITISH ARMY AID GROUP (BAAG). Operating from Hong Kong, the British Army Aid Group was established in March 1944 to give humanitarian aid to prisoners of the Japanese, under the command of an Australian doctor, Lindsay Tasman Ride, who had escaped from Hong Kong and joined MI9, the Escape and Evasion Service. By May 1945, BAAG had provided assistance to 130 British and American personnel, 350 Indians, and several thousand Chinese and sent missions deep into China to construct medical clinics, distribute rice, and offer famine relief. The BAAG also collected intelligence about the Japanese on the mainland for the local British Secret Intelligence Service station (the Inter-Services Liaison Department) and circulated pro-Allied propaganda until the conclusion of hostilities.

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CALDWELL, OLIVER J. One of the first representatives of the **Office of Strategic Services (OSS)** in China and fluent in Mandarin, the Foochow dialect, and Japanese, Oliver Caldwell acted as a liaison officer with the **Kuomintang** but found his organization rejected by General Joseph Stilwell's staff in India. Upon his return to Chungking, he was to develop a close relationship with **Tai Li**, as he later documented in his 1972 memoirs, *A Secret War: Americans in China, 1944–1945*. See also DIXIE MISSION.

CAMPCON. In 1996, the **Federal Bureau of Investigation (FBI)** conducted an enquiry codenamed CAMPCOM into political campaign contributions to the Democrat Party from the People's Republic of China (PRC). The investigation, assisted by Katrina Leung, codenamed **PARLOR MAID**, had been prompted by events that had followed inaccurate political forecasting made about the 1980 election by Cao Quisheng, then first secretary of the political section of the PRC's embassy in Washington DC. Having assured Beijing that the incumbent, President Jimmy Carter, would be reelected, Cao had been embarrassed when Carter was defeated in a landslide by Ronald Reagan.

Following this failure, the PRC made a concerted effort to compete with **Taiwan** for influence on Capitol Hill and at the White House and, by 1996, had begun to make cash donations to the Democrats and to President Bill Clinton, who had been befriended by Yah Lin "Charlie" Trie, the owner of a Chinese restaurant in Little Rock, Arkansas. Born in **Taiwan**, Trie had immigrated to the **United States** in 1974 and eventually acquired citizenship. After making a large donation to Clinton in 1996, Trie wrote to the president expressing concern about American policy and tensions arising from the PRC's military exercises being conducted near Taiwan. In response, Clinton directed a National Security Council staffer to reply.

Another Chinese who attempted to exercise influence over the Clinton White House, investigated during CAMPCON, was John Huang, who had been born in China but raised in Taiwan after the Communist takeover in 1949. He immigrated to the United States in 1969 and became a citizen seven years later. After graduating from college, Huang met two Indonesians, Mochtar and James Riady, who headed the Lippo Group, and

he later worked for them when they bought out a local bank in Arkansas. He later moved to Los Angeles but, after Clinton's election in 1992, lobbied for a post in the administration on the basis of his links to Clinton and his wife Hillary Rodham Clinton.

In 1993, Huang was appointed deputy assistant secretary for international economic affairs, having received a \$750,000 severance package from the Lippo Group. Two years later, Huang moved to a fund-raising position at the Democratic National Committee (DNC). When he was later interviewed by Department of Commerce investigators, Huang refused to answer questions 2,000 times, citing his Fifth Amendment right to not incriminate himself, when asked if he was acting as an agent of the PRC military.

Another suspect interrogated during CAMPCON was Ng Lap Seng (the Cantonese Romanization, used in Macao instead of the Mandarin Romanization, Wu Lixing), who owned extensive real estate holdings in Texas, **Hong Kong**, and **Macao** and was the business partner of Wang Jun, chairman of one of the PRC's largest financial conglomerates and who also headed a leading arms firm. Ng also became a political contributor after Charlie Trie first helped him purchase and renovate an old hotel in Little Rock. Ng gave the DNC \$15,000 shortly after he had formed a company, Sin Kin Yip Inc., and later said that he believed that giving contributions to Clinton and the Democrats would ensure he would have access to U.S. markets. Later, Trie introduced Wang Jun to President Clinton at the White House. At the time, Wang was chairman of Poly Technologies, a front for the **Commission of Science, Technology and Industry for National Defense (COSTIND)**. His father, Wang Zhen, was a hardliner in Beijing who advocated crushing the pro-democracy movement during the Tiananmen Square demonstrations of 1989.

The FBI later established that, between 1994 and 1996, Trie received more than \$900,000 in wire transfers from Ng and that there was a correlation between the wire transfers and Trie's contributions to the DNC. On one occasion, Trie showed up with \$460,000 in \$1,000 contributions, some on sequentially numbered money orders made out in different names but the same handwriting. On another occasion, Trie sat at a fund-raising event with Ng at the same table as President Clinton, after Trie had made a \$100,000 contribution.

Another suspect was Johnny Chung, who was found to have made 49 visits to the Clinton White House between 1994 and 1996 and to have

donated \$366,000 to the DNC. Chung later told federal investigators that \$35,000 of the money he donated came from the PRC's military intelligence, and he testified to a U.S. House of Representatives committee that he had been introduced to the then head of the **Second Department of the People's Liberation Army General Staff**, Major-General Ji Shengde. According to Chung, Ji promised to give \$300,000 for Clinton's reelection, an assertion later denied by the PRC.

In June 1999, Ji was removed from his post after being involved in a smuggling scandal in Fujian Province and was sentenced to death but later received a commuted sentence of 20 years' imprisonment.

In total, 22 suspects, including Huang, Trie, and Chung were convicted of various crimes relating to CAMPCON, and some others fled abroad. Several congressional committees pursued the issue, among them the Senate Committee on Governmental Affairs, chaired by Republican Senator Fred Thompson. *See also* PARLOR MAID; UNITED STATES OF AMERICA (USA).

CANADA. Responsibility for investigating and countering Chinese espionage in Canada lies with the Canadian Security Intelligence Service (CSIS); although, the Royal Canadian Mounted Police pursues any criminal matters concerning the theft of industrial and commercial secrets. The task of monitoring the 120 People's Republic of China diplomats accredited to the embassy in Ottawa is a substantial burden for CSIS, and in April 2007, the organization's director, Jim Judd, told the Canadian Senate Standing Committee on National Security and Defence that "just about" 50 percent of his staff's time was taken up by Chinese espionage. *See also* CHEN YOGLIN; FALUN GONG; HAN GUANGSHENG; HANSON, HAROLD DEWITT; HAO FENGJUN; INDUSTRIAL ESPIONAGE.

CANBERRA EMBASSY. In April 1995, after five weeks of litigation over a government injunction to prevent publication of a story alleged to have national security implications, the **Australian** media revealed that a long-term technical surveillance operation had been conducted against the People's Republic of China's newly constructed embassy in Canberra and had provided the West's signals intelligence community with a hugely valuable source of information. Reportedly, some 30 linguists had been employed to process the recorded conversations, and the access included a

clandestine video feed that had been inserted into the building during construction. Premature disclosure instantly terminated the project.

CATHAY PACIFIC. On 22 July 1954, a Cathay Pacific DC-4 flying from Bangkok to **Hong Kong** was attacked by a La-9 Fritz fighter near Hainan Island, killing 10 of the 18 passengers and crew. When the USS *Philippine Sea* launched two U.S. Navy AD-4 Skyraiders from VF-54 to search for survivors, they were attacked by a pair of La-7 Fins. More carrier-borne planes were then launched, which shot down the mainland Chinese fighters. *See also* AIRBORNE COLLECTION; UNITED STATES OF AMERICA (USA).

CENTRAL BUREAU 610. According to the testimony of a defector, **Chen Yonglin**, formerly the first secretary at the People's Republic of China's (PRC) consulate in Sydney, the **Chinese Communist Party**'s Central Committee created a special office in July 1999 to supervise the **Falun Gong** issue, which later became the Department of External Security Affairs and then Central Bureau 610.

Evidence related to the bureau's activities was released by the federal German Bundesamt für Verfassungsschutz (BfV), following an investigation conducted in the recruitment in 2005 by the **Ministry of State Security (MSS)** of an academic, a Chinese emigrant who had been a German citizen since the 1990s. The individual had applied for a visa at the Berlin embassy to visit his sick father but instead had been questioned about his Falun Gong membership and invited, in March 2006, to a further meeting at a Berlin hotel with PRC officials named only as "Xiaohua Zapatero" and "Bin C." In October 2009, the academic's home in Lower Saxony was raided by the BfV seeking evidence that, since September 2008, he had forwarded all material distributed to Falun Gong's mailing list to an e-mail address located just outside **Shanghai**. Although the academic pleaded innocence, he was informed that the two men he had met in Berlin were not researchers but senior MSS officials working for Central Bureau 610 who were under BfV surveillance at the time. He was also accused of having opened a GMX e-mail account in January 2009 to receive Falun Gong circulars and having shared the password access with the MSS.

CENTRAL CASE EXAMINATION GROUP. During the **Cultural Revolution**, the Central Case Examination Group, headed by **Kang Sheng**,

conducted investigations into individuals who had been denounced and recommended for reeducation. *See also* MINISTRY OF STATE SECURITY (MSS).

CENTRAL DEPARTMENT OF SOCIAL AFFAIRS (CDSA). The intelligence branch of the Chinese Communist Party (CCP), the CDSA was headed initially by Kang Sheng and provided the party leadership with information largely drawn from foreign news agencies and open sources.

During the Yan'an period, the CDSA provided the CCP leadership with reports on the world situation and on the major events and issues taking place abroad. These efforts were based on news reports from foreign press agencies and a limited number of foreign newspapers and books. During the conflict with the Kuomintang between 1946 and 1949, the CDSA's intelligence was considered pivotal to the final victory. After the CCP had consolidated state power, the intelligence system played an increasingly important role, and the CDSA's head, Li Kenong, was appointed head of the renamed Central Investigation Department, formed in 1953. Li also held several other leadership positions, including deputy chief of general staff and vice minister of foreign affairs and attended meetings for the Politburo as an observer.

CENTRAL DISCIPLINE INSPECTION COMMISSION (CDIC). The Chinese Communist Party's (CCP) most powerful investigatory agency, the CDIC is responsible for eliminating corruption within the CCP's 76 million membership and is not externally accountable to the police, the judiciary, or any other institution. Created in 1949, on a model established in 1927, the CDIC was dormant during the period of the Cultural Revolution but was reconstituted in 1978 and headed by Chen Yun, Qiao Shi, Wei Jianxing, and Wu Guanzheng. Since 2007, the CDIC, which enjoys the widest powers of detention and interrogation, has been run by He Guoqiang and is based in an anonymous, walled compound, which accommodates two 10-story buildings in Beijing's Ping'anli district. The compound is protected by a high wall and armed guards.

The CDIC consists of 20 departments, 8 of which conduct investigations in specific parts of the economy, including the ministries and state-owned business, and the government. Each of the eight principal directors has the power to authorize telephone and e-mail intercepts and relies on the Ministry of State Security to provide the technical resources required.

Previously, the CDIC had depended on the **Ministry of Public Security (MPS)** to conduct wiretaps, but this arrangement had led to too many leaks. It is rumored that many suspects taken into indefinite custody, or *shuang gui* (double rule), commit suicide.

Theoretically, He Guoqiang is directed by a CCP committee, which sets priorities and targets. Once an enquiry has been initiated, a review is performed three months later to determine whether further investigation is warranted. According to the CDIC, in February 2007, 46.2 percent of its cases the previous year had come from complaints from the public, made directly or through the Ministry of Supervision.

The CDIC has a reputation for exercising independence and pursuing individuals, such as those known as the **princelings**, thought to enjoy high-level protection. Although some princelings enjoy immunity in Beijing, that privilege does not always extend to the other cities and provinces, and some parents have endured incarceration for the crimes of their children.

In January 2009, the CDIC arrested an assistant minister (10th in the national police hierarchy), Zheng Xiaodong, in his office at the MPS in Beijing. Originally from Shantou, Zheng had established a reputation with the Guangdong Criminal Investigation Department, where he had supervised the prosecution of Cheung Tze-keung, a notorious **Hong Kong** gangster, who kidnapped and ransomed Victor Li, son of Li Ka-shing. Zheng was then promoted to head of Beijing's economic crime bureau and, in April 2005, became assistant minister and a member of the ministry's Communist Party committee. However, after the arrest of the Gome chairman, Huang Guangyu, in November 2008, it was learned that Zheng had been bribed by Huang and had been involved corruptly with other gangsters. The case had been passed to the CDIC, and after an interrogation lasting a year, Zheng attempted suicide.

Some CDIC investigations are extraordinarily large, such as the case against Chen Liangyu, the **Shanghai** party chief who was dismissed in September 2006 and sentenced in Tianjin to 18 years' imprisonment, having been convicted of accepting \$340,000 in bribes. The CDIC team responsible for prosecuting Chen amounted to 260 officers, some of them drafted from Jilin, Jiangsu, and Zhejiang and from the military. Other notable corruption cases include those of Yang Xiuzhu, the vice-mayor of Wenzhou, who defected in 2003 to escape criminal charges, and Yang Xianghong, the 52-year-old deputy party chief of a district in Wenzhou,

who defected while on a business trip to **France** in 2008. In his absence, Yang was stripped of his party membership, and in July 2010, Chen Shaoji, the former top political adviser of Guangdong province, was sentenced for embezzling nearly \$4 million between 1992 and 2009.

In recent years, the CDIC itself has been accused of corruption, including Zeng Jinchun, the organization's most senior officer in Chenzhou, Hunan Province, between 1997 and 2006, who was accused with his wife and children of having received 31.5 million yuan in bribes from the construction and mining industries and failing to explain the source of assets worth another 28.77 million yuan. In August 2009, he was sentenced to death in Changsha. Also implicated was Li Dalun, the local party chief in Chenzhou, who received a suspended death sentence, and 158 other officials and businessmen. Similarly, Wang Huayan, the CDIC leader in Guangdong and Zhejiang provinces between 1998 and 2009, where he had also been the CDIC's influential party secretary, also was accused of having abused his power to amass a fortune. To save his life, he has cooperated with the authorities, expressed public remorse, and publicly urged people to denounce corruption, saying "transparency is the best method of fighting corruption."

Details of the CDIC's activities are rarely publicized; although, *Black Box*, written anonymously by three authors describing themselves as "no ordinary Chinese" and published in Hong Kong, has documented high-echelon corruption and the CDIC's interventions.

CENTRAL INTELLIGENCE AGENCY (CIA). Created in 1947 by the National Security Act in succession to the **Office of Strategic Services** and the Central Intelligence Group, the CIA fulfilled its mission to collect intelligence about mainland China, principally from stations in **Hong Kong** and Taipei, **Taiwan**. After the Communist victory in 1949, the CIA relied upon personnel operating under non-official cover, but in April 1951, the danger of this strategy was demonstrated when **Hugh Redmond** was arrested in **Shanghai** and endured 19 years of harsh imprisonment before he died, protesting his innocence to the end.

With limited resources in the Far East, largely because of the hostility of General Douglas MacArthur, the CIA's reporting after the outbreak of the **Korean War** was very poor; although, George E. Aurell, the station chief in Tokyo, relayed a warning from a Chinese Nationalist officer in Manchuria that 300,000 **People's Liberation Army (PLA)** troops were concentrated

close to the Korean border. One of Aurell's subordinates in the three-man station, Bill Duggan, based in the U.S. Navy Seventh Fleet base at Yokosuka, predicted that the Chinese would cross the Yalu River and intervene, but he was ignored. Similarly, a CIA officer in Taiwan, Bob Myers, relayed reports from his Nationalist contacts that the PLA was moving north to the Manchurian border, but they were ignored by MacArthur's intelligence staff.

On 20 October 1950, four days after the first Chinese troops had joined the conflict, the CIA concluded that the soldiers had been deployed to protect local Chinese hydroelectric plants and, on 28 October, insisted that the forces were merely "scattered volunteers." Two days later, as hundreds of thousands of PLA troops engaged American ground forces, a CIA assessment suggested a major Chinese invasion was unlikely.

Increasingly allied with the **Kuomintang**, the CIA established a large station in Taiwan, which would be headed by the formidable Dr. **Ray Cline** and staffed by some 600 personnel, some of whom worked under semitransparent Western Enterprises commercial cover. Through **Chiang Kai-shek**'s son **Chiang Ching-kuo**, the CIA attempted to develop a "third force" on the mainland during the Korean War by sponsoring Nationalist guerrilla groups and frequent raids intended to harass the Communists. In parallel, the CIA also monitored Taiwan's clandestine nuclear bomb project and recruited an agent, Colonel Chang Hsien-Yi, within it.

As part of a plan to support Tibetan nationalists, the CIA sponsored and trained a guerrilla force, having established a training facility at Camp Hale in Colorado, but the campaign was suppressed with ruthless efficiency by the People's Republic of China (PRC) and eventually was abandoned because of political expediency and concern about hostile penetration of the groups of volunteers.

The CIA's first station in Beijing was opened in 1973, following the appointment of **Jim Lilley** as station chief, and thereafter the relationship prospered with a formal agreement to exchange intelligence collected about the Soviets from intercept sites established in **Xinjiang**.

As well as collecting information about the PRC's military capability, the CIA monitored Beijing's activities as a major weapons proliferator, supplying nuclear and missile technology to other countries, including **North Korea**, Iran, and **Pakistan**. In 1997, the CIA reported that

During the last half of 1996, China was the most significant supplier of weapons of mass destruction goods and technology to foreign countries. The Chinese provided a tremendous variety of assistance to both Iran's and Pakistan's ballistic missile programs. China also was the primary source of nuclear-related equipment and technology to Pakistan and a key supplier to Iran during this reporting period.

That the CIA was considered an important target by the **Ministry of State Security** is demonstrated by the very considerable investment made in the skilled cultivation and management of the Directorate of Intelligence analyst **Larry Wu-tai Chin**. The CIA's traditional answer to the Chinese challenge has been to adopt a generous, open-door policy toward defectors to encourage other potential line-crossers to seek asylum in return for supplying information. *See also* CIRCUS; CIVIL AIR TRANSPORT (CAT); NATIONAL SECURITY AGENCY (NSA); SINO-SOVIET SPLIT; TIBET; UNITED STATES OF AMERICA (USA).

CENTRAL INVESTIGATION DEPARTMENT (CID). Headed by **Li Kenong** during the 1950s, the CID expanded overseas by sending representatives to embassies under cover of the Investigation and Research Office. Li Kenong, who died in 1962, was succeeded by Luo Qingchang, who worked under the direction of **Kang Sheng**. The CID would be abolished during the **Cultural Revolution** and its responsibilities absorbed by the **Second Department of the People's Liberation Army's General Staff**. However, it would be reestablished in 1972, but under pressure from **Deng Xiaoping**, the CID failed to expand its activities into embassies overseas. In 1976, Zhou Shaozheng was appointed head of the CID, but he was purged in 1982, having been falsely accused of plotting against Premier **Zhou Enlai**. The following year, the CID was absorbed into a new **Ministry of State Security** under Lin Yun, but he would be replaced by Jia Chunwang following the defection in 1985 of **Yu Qiangsheng**.

CHANG, THERESA. On 21 June 2007, Theresa Chang pleaded guilty to one count of making false statements related to the export to **Taiwan** of nickel powder, a commodity controlled because of its nuclear application, without an export license. On 11 October 2007, she was sentenced in the Northern District of California to three years' probation and fined \$5,000. *See also* CHINESE NUCLEAR WEAPONS; TECHNOLOGY ACQUISITION; UNITED STATES OF AMERICA (USA).

CHANG FEN. The alias of a defector from the Soviet KGB, Chang Fen was granted political asylum at John F. Kennedy Airport in late December 1982. Born in China, he had escaped to Alma Ata, where he had been imprisoned for having crossed the frontier, but was recruited while in captivity by the KGB as an illegal. Sent on a mission to Mauritius with a **Canadian** passport, Chang took a TWA flight to New York, without any luggage, and surrendered to the **Federal Bureau of Investigation**. He spent Christmas with Ed Worthington, an FBI special agent, at his home in Pennsylvania and then was flown to Florida for a lengthy debriefing in a warm climate.

His defection was kept secret, and the **Central Intelligence Agency (CIA)** arranged for another Chinese agent to maintain contact with the KGB and appear at a rendezvous in Nairobi. This ploy was intended to identify Soviet intelligence personnel and expose KGB activities in the region.

When eventually the deception was terminated, the KGB assigned a senior security officer, Vitali Yurchenko, the task of determining what had happened to the illegal who had disappeared. As Yurchenko admitted while being debriefed in the **United States** in September 1985, following his defection, he had concluded that the agent had been compromised in Kenya because of a passport problem but had not actually defected. In 1988, the *Reader's Digest* writer John Barron published a sanitized account of the case, "The Spy Who Would Be Free," omitting details of the CIA's lengthy double agent stratagem.

CHANG HSIEN-YI. In December 1987, the deputy director of **Taiwan's** Institute of Nuclear Energy Research (INER) sought political asylum in the United States and disclosed details to the **Central Intelligence Agency (CIA)** of the country's clandestine nuclear weapons development program. According to Colonel Chang, the INER, an ostensibly civilian organization, had been diverting plutonium into a military project for years and had evaded inspection by the International Atomic Energy Authority. Colonel Chang had been recruited by the CIA when he was a military cadet and had supplied information to his handlers for more than 20 years. His documentation provided absolute proof of Taiwan's covert bomb project, which had been monitored by the CIA's Rob Simmons during the early 1970s.

Under intense diplomatic pressure, the Taipei government undertook to suspend the program permanently, while Beijing declared that possession of nuclear weapons would be a legitimate reason for an attack on the island.

CHAN TEK FEI. Employed as a linguist at the British **Government Communications Headquarters (GCHQ)** signals intelligence base at **Little Sai Wan** on **Hong Kong**, Chan Tek Fei was arrested in 1961, following an ostensibly routine customs search, and charged with espionage on behalf of the People's Republic of China. Allegedly, he was found to be carrying classified documents, lists of GCHQ personnel with descriptions of their vulnerabilities, and details of an affair between his wife and a senior GCHQ officer, who was promptly transferred. *See also GREAT BRITAIN.*

CHAO FU. Formerly a security officer at the People's Republic of China embassy in Stockholm and married with a child, 27-year-old Chao Fu became increasingly disillusioned with the contrast between his life in China and the comparative wealth and freedom of Sweden and tried to defect to the local American embassy but could not find anyone who spoke Mandarin. He had already decided that the neutral Swedes would not help him, so he planned to leave the country. However, after he had come under the suspicion of colleagues and was confined to his room, he managed to slip away and take the keys to the embassy Chrysler. He then drove into the Swedish countryside, and following a series of misadventures, he walked and hitchhiked to the U.S. embassy in Bonn, where, in August 1962, he applied for political asylum. By Christmas, Chao had been resettled in the **United States**.

CHAO TAH WEI. In March 2008, Chao Tah Wei, a 53-year-old resident of Beijing and naturalized U.S. citizen, ordered 10 thermal imaging cameras from FLIR Systems Inc. and paid \$53,000 and the following month was arrested, along with Guo Zhong, a Beijing resident aged 49, as they attempted to smuggle them onto a China Airways flight from Los Angeles International Airport to the People's Republic of China (PRC). Under interrogation by the Export and Anti-proliferation Global Law Enforcement (EAGLE) team, he admitted having smuggled three other cameras to the PRC in October 2007 for Guo, a director of a Beijing engineering company. Chao pleaded guilty to charges of violating the export ban on the equipment and gave evidence at the week-long trial of Guo, who was convicted in

February 2009. Chao was sentenced to 20 months' imprisonment, and Guo received 60 months. *See also* TECHNOLOGY ACQUISITION; UNITED STATES OF AMERICA (USA).

CHARBATIA. In 1962, following border clashes with the People's Republic of China, the Indian government, having been refused help from the **Soviet Union**, appealed to the **Central Intelligence Agency (CIA)** for assistance in monitoring **People's Liberation Army** movements across the frontier. Agreement was reached for the temporary deployment of **U-2** aircraft at Charbatia, near Cuttack, having been flown in from Cubi Point in the Philippines. Between May and December 1964, several missions were flown successfully over the People's Republic of China and **Tibet**. *See also* UNITED STATES OF AMERICA (USA).

CHENG, PHILIP. On 3 December 2007, Philip Cheng, aged 60 of Cupertino, California, was sentenced to two years' imprisonment and fined \$50,000 for illegally exporting a night-vision camera and related technology to the People's Republic of China. Cheng originally was indicted in 2004 for violations of the federal Arms Export Control Act and three counts of money laundering, and his guilty plea on 31 October 2006 followed trials in February and March 2006, which had ended in hung juries.

According to the prosecution, Cheng conspired with Martin Shih, the owner of Night Vision Technology, who died shortly before the indictment. Documents seized from Cheng's home and his trash bins revealed that the two men had entered into agreements to export thermal imaging and infrared technology to the PRC. During an interview with federal agents in June 2003, Cheng had acknowledged that he had acted as Night Vision Technology's agent with PRC entities and that he was "probably wrong" to have transferred a Panther I camera to the North China Research Institute of Electro-Optics and the China National Electronics Import and Export Corporation. *See also* TECHNOLOGY ACQUISITION; UNITED STATES OF AMERICA (USA).

CHEN YONGLIN. On 26 May 2005, Chen Yonglin, the 38-year-old first secretary of the People's Republic of China (PRC) consulate in Sydney, **Australia**, defected and was followed a few days later by **Hao Fengjun**, described as a "low ranking" Chinese intelligence officer. Formerly a university student in Beijing during the 1989 Tiananmen Square

demonstrations, Chen had joined the Ministry of Foreign Affairs in 1991 and later claimed that his father had died after having been tortured during the **Cultural Revolution**.

Before his defection, Chen had been in covert contact with the **Central Intelligence Agency** and the Australian Security Intelligence Organisation. Chen claimed that his duties included the monitoring of Chinese dissidents in Australia, especially members of the **Falun Gong**. Chen and Hao insisted that the **Ministry of State Security** had hundreds of spies and informants in both Australia and **Canada**, whose responsibility was to both harass Falun Gong members as well as steal commercial and scientific secrets. However, Hao's assertion that the Chinese had 1,000 spies in Canada was disputed by Michael Juneau-Katsuya, a former Canadian Security Intelligence Service (CSIS) officer, who drew a distinction between agents and sources, saying Hao's claim was likely referring to paid informants and that he found that figure to be entirely plausible. This retiree also said that CSIS had estimated Canada lost \$12 billion annually due to Chinese **industrial espionage**.

Fearing his abduction, Chen, his wife, and six-year-old daughter went into hiding, but he emerged briefly to address a rally in Sydney to commemorate the 16th anniversary of the June 1989 Tiananmen Square massacre. He was granted a permanent protection visa about six weeks after his defection, together with Hao, on 21 July 2005. Chen appeared before the U.S. House of Representatives Subcommittee on Africa, Global Human Rights and International Operations to give evidence on *Falun Gong and China's Continuing War on Human Rights*. Chen testified that "I am aware there are over 1,000 Chinese secret agents and informants in Australia, and the number in the **United States** should not be less" and revealed the existence of **Central Bureau 610** and produced an internal consular document, *Five Poisonous Groups*, which identified Falun Gong members, Tibetan separatists, **Uighur** activists, Taiwanese independence supporters, and pro-democracy campaigners as targets for surveillance and harassment. Later the same year, he gave further evidence to parliamentary committees in Brussels and London about human rights in the PRC. *See also TAIWAN; TIBET.*

CHEUNG, MARK. Identified as a **Ministry of State Security** officer, Mark Cheung was a theology graduate and Roman Catholic priest who had run a parish in Southeast Asia before he began working at the Church of the Transfiguration on Mott Street in New York's Chinatown in 1972. Alleged

to have had a wife and child in the People's Republic of China (PRC), Cheung was thought to have been sent to the **United States** to act as a case officer for **Larry Wu-tai Chin**. When Chin was arrested, Cheung quickly left New York for **Hong Kong**, but soon after, he was interviewed there by Pat Dolley and Larry Goff, special agents of the **Federal Bureau of Investigation**. He disappeared into the PRC and has not surfaced since. *See also ILLEGALS.*

CHIANG CHING-KUO. Born in 1910, the eldest son of **Chiang Kai-shek**, Chiang Ching-kuo was educated in **Shanghai** and then at the newly established Sun Yat-sen University in Moscow, where he denounced his father's April 1927 White Terror in Shanghai, when the Communists were purged. In exile in the **Soviet Union**, he attended a military academy and married a Russian before becoming a manager of a heavy machinery factory in Sverdlovsk. In 1937, he returned to Nanking via Hong Kong, gradually gained his father's trust within the **Kuomintang (KMT)**, and, in August 1949, was appointed head of the KMT's intelligence services. He merged the notorious Central Bureau of Investigation and Statistics with **Tai Li**'s Military Bureau of Investigation and Statistics to create the Reference Group of the Presidential Palace's Confidential Office, an organization that he headed for 25 years. "CCK," as he was known to his Western friends, cultivated a relationship with the U.S. **Central Intelligence Agency (CIA)**, on whom he came to rely, as a lifelong diabetic, for his supply of insulin.

Elected prime minister in succession to his father, Chiang became president six years later but was implicated in the murder in October 1984 in California of his biographer, Henry Liu, and the following year announced the dynasty was over by posting his son Alex to Singapore as **Taiwan**'s trade commissioner. Chiang died in January 1988, aged 77. His son died in July 1991, aged 46.

CHIANG KAI-SHEK. Born in Zhejiang in 1887, Chiang pursued a military career and embraced the politics of **Sun Yat-sen** and his **Kuomintang (KMT)** party in its attempts to overthrow the imperial dynasty that ruled China. In 1912, when the Republic of China was established, Chiang became Sun's close confidant and was appointed head of the Whampoa Military Academy after Chiang, Sun, and Soviet agent Mikhail Markovich Grusenberg, who used the nom de guerre of Borodin,

had returned from Moscow. This academy provided him with a base of support that remained loyal to him throughout the remainder of his leadership of the KMT, a political movement that was largely dependent on rigid discipline, a ubiquitous security apparatus, and an extensive intelligence organization.

Chiang married Soong Mei-ling, the youngest of the three daughters of the wealthy and influential Soong family, while Sun married the middle daughter, Soong Ching-ling. After Sun's death in 1925, Chiang assumed the mantle of the leadership of the KMT, which split with the Communists, prompting a civil war. When the Japanese invaded Manchuria in 1937, Chiang's KMT forces reestablished a relationship with the Communists, then led by **Mao Zedong**. Chiang was regarded as the leader of China by the Allies during World War II, but the defeat of the Japanese in 1945 reignited the civil war. By 1949, Chiang's forces were forced to withdraw to the island of **Taiwan**, where he established himself as head of a Republic of China government-in-exile. His rule of Taiwan was characterized by martial law until his death in 1975, never having made good on his vow to return to the mainland. *See also CHIANG CHING-KUO.*

CHIANG KEWILIN. Formerly the **New China News Agency (NCNA)** chief in Cairo, Chiang Kewilin defected to **Taiwan** after 12 years of experience with the organization and denounced his colleagues, claiming that most of the NCNA's military section were professional intelligence officers who had attended the NCNA's own language school for three years. All, he said, had more than 10 years' party membership and had been recruited straight from high school.

CHI MAK. In October 2005, a 66-year-old retired power engineer, Chi Mak, was arrested at his home in Los Angeles and charged with having passed defense secrets to the PRC for the past 20 years. A naturalized U.S. citizen of Chinese origin, Chi Mak worked for a defense contractor, Power Paragon, and was charged with having compromised thousands of documents, including plans of the new DD(X) warship and developments in the sensitive field of quiet electric drive (QED). Also arrested were his wife, Rebecca Liu-wa Chu; brother Tai Wang Mak; his brother's wife, Fuk Heung Li; and his nephew Billy. Chi Mak, a lead engineer on QED research, had been under surveillance by the **Federal Bureau of Investigation (FBI)** and the Naval Criminal Investigative Service (NCIS) since June 2004, an

operation that accumulated transcripts of 20,000 telephone calls and recordings of conversations held in Chi Mak's 1998 Oldsmobile and videos of his office in Anaheim and two rooms in his home.

Among the evidence seized was a CD-ROM containing 200 restricted documents encrypted and hidden beneath music tracks. The topics covered by the documents included QED applications for the new *Virginia*-class submarines, kinetic energy missiles for submarines, torpedo design, electromagnetic launch systems for aircraft carriers, and missile detection equipment. Of particular concern to the investigation was the apparent loss of details concerning the Aegis radar system, technology that had been supplied to several North Atlantic Treaty Organization (NATO) navies, as well as to **Japan** and **Taiwan**. In his confession, Mak admitted that, prior to 2001, he had regularly traveled to **Hong Kong** to deliver material to his brother Tai Wang Mak, who then had been living in the PRC.

Found guilty at his trial in May 2007, Chi Mak was sentenced to 24 years' imprisonment and a fine of \$50,000. The following month, Billy Mak and Fuk Li pleaded guilty and were deported, with Billy receiving credit for the 11 months he had spent in prison awaiting trial, while Tai Wang Mak received 10 years' imprisonment.

During Chi Mak's trial in May 2007, the FBI revealed that a search of his Los Angeles apartment had revealed a letter written by Gu Weihao, an agent of the Chinese Ministry of Aviation Industry, to a former Boeing engineer, **Greg Chung**, asking him to collect data on commercial airliners and the Space Shuttle and then pass the information to Chi Mak, who would relay it to China. Gu was related to Chi Mak's wife and supplied her with letters to Chung. Also found in Mak's apartment were documents relating to the F-16 Falcon fighter and the Space Shuttle, items which were out of Mak's field of expertise and most likely had been provided by Chung. *See also CHINA NATIONAL NUCLEAR CORPORATION (CNNC); CHINESE NUCLEAR WEAPONS; TECHNOLOGY ACQUISITION; UNITED STATES OF AMERICA (USA).*

CHIN, LARRY WU-TAI. Born in Peking in 1924, Larry Chin (Jin Wudai) worked for the U.S. Army's liaison office at Fuchou in southern China in 1943 and joined the U.S. consulate in **Shanghai** as an interpreter, and although it was never established precisely when he had been recruited by the People's Republic of China (PRC) as a mole, he was actively engaged in espionage for the Communists by 1948. In 1952, having become a

naturalized American citizen, he was recruited by the **Central Intelligence Agency (CIA)**.

Chin's early career, which had included a stint as an interrogator in 1952 for the State Department (questioning Chinese prisoners of war in Korea) and work with the Foreign Broadcast Information Service (FBIS) in Okinawa, had led to an FBIS posting in California and finally to an appointment as a CIA case officer based in Virginia. With access to the CIA's National Intelligence Estimates on China, he had met his **Ministry of State Security (MSS)** handlers on trips to London, **Macao**, **Hong Kong**, and Toronto and compromised not only thousands of classified documents but also betrayed the sources upon which the CIA had depended for information from inside the PRC. At his trial for 17 counts of espionage, the prosecution intended to show, with the aid of color charts, that Chin had influenced almost every facet of Sino-American relations over several decades. The sheer volume of the material he sent to Beijing required the MSS to take up to two months to translate and process it.

Although Chin retired from the CIA as a senior analyst in July 1981, he appears to have concealed the exact date from his MSS handler and soon afterward had been feted at a banquet held at the MSS headquarters in Beijing, where he was appointed an honorary MSS officer. Chin tried to cover up the fact that he had lost access to classified information and maintained contact with CIA colleagues so he could pick up additional information. He also bought a copy of *The Puzzle Palace* by James Bamford to give the impression that he was also closely involved with the **National Security Agency**.

Chin had most recently kept a rendezvous with the MSS in East Asia in March 1985 and was arrested in November 1985 after a defector revealed the veteran CIA translator had been supplying the CIA's secrets to the PRC and was believed to have sold information for more than \$1 million over a period of 33 years, longer than any other spy known to have worked against the **United States**. Decorated for his distinguished service, Chin had been so highly valued by the CIA that, after his retirement, the agency had tried to persuade him to come back to work full-time. While under surveillance by the **Federal Bureau of Investigation (FBI)**, it was learned that Chin maintained an office in the Watergate building in Washington DC and often stayed there in preference to living with his wife in their apartment at Duke Street, Alexandria. He also conducted several affairs, was a heavy gambler,

and was twice the subject of complaints that he had molested young girls in his neighborhood. The full extent of his real estate investments was never revealed, but they were substantial, and a financial audit of his assets revealed that he owned some 30 rental properties in the Baltimore area, made regular trips to casinos in Las Vegas, and had his gambling debts paid off by bank transfers from Hong Kong.

At his trial, Chin claimed that his additional income was derived from a successful blackjack method, but he was found to have maintained meticulous records and was challenged about his travel to the PRC, in particular being questioned about a specific hotel room in which he had stayed that was known to have been under the MSS's control. Confronted with what appeared to be incontrovertible evidence against him, Chin offered to act as a double agent and was then invited to describe the extent of his contacts with the MSS. For just over an hour, Chin elaborated on his espionage, mentioning that he had supplied the Chinese with sensitive CIA material relating to Henry Kissinger's historic visit to Beijing in 1971 in preparation for President Richard Nixon's momentous change in U.S. foreign policy. When Chin had completed his exposition, he was arrested, and his confession was the basis of his prosecution.

Chin was indicted on 17 espionage and tax evasion charges, but rather than face a long prison sentence of up to 133 years and a \$3.3 million fine after he was convicted by a federal jury in February 1986 of espionage, conspiracy, and tax evasion, Chin suffocated himself in his cell in the Prince William County jail with a plastic garbage bag. His widow, Cathy, suspicious that Chin should have had access to the shoelaces he used to secure the bag around his head, later claimed in *The Death of My Husband: Larry Wu-Tai Chin*, a book printed in Chinese in Taiwan and published privately, that he may not have taken his own life; although, not all versions of the book contain this allegation. Chin's son, a physician, was allowed to examine his father's body and found no reason to challenge the coroner's verdict of suicide.

Those who knew Chin well were sure that he anticipated two life terms but was most frightened of losing all his rental properties and killed himself before he had been sentenced to forfeit his assets, thus preventing the Internal Revenue Service from taking any action that would impoverish his family. An alternative view, held by Dr. David L. Charney, the renowned psychiatrist who has interviewed numerous defendants convicted of

espionage, suggests that Chin committed suicide due to remorse but not because of his espionage, rather because he failed his long time PRC handler, Ou Qiming, noting Ou was his sole handler throughout his espionage career, an unprecedented manner of handling a source. According to Charney, Chin had retained confidence in Ou during a sustained relationship over the decades of his clandestine work for the PRC, and the fact that he was caught and arrested was, in Chin's eyes, a personal failure, convinced he had let Ou down.

Although never disclosed publicly, Chin's arrest had taken place as a consequence of a tip from **PLANESMAN**, actually **Yu Qiangsheng**, who had been responsible for compromising the French diplomat **Bernard Boursicot**.

Chin is considered a great hero by many in the PRC, credited with having made a major contribution to the normalization of relations between the United States and mainland China. When the first overtures were made to the Chinese, **Mao Zedong** initially thought the approach was probably a provocation that could lead to embarrassment. However, **Zhou Enlai**, who had a considerably broader worldview and experience than Mao, thought it was something that warranted further inspection, so he had turned to **Shen Jian** to authenticate the overture. It was Shen's initiative that led to Chin being able to provide confirmation and thereby allow the negotiations that led to normalization. Thereafter, Chin was able to provide the Chinese with the positions to be taken by the Americans in the negotiations. *See also CHEUNG, MARK.*

CHINA, REPUBLIC OF. *See TAIWAN.*

CHINA ACADEMY OF ENGINEERING PHYSICS (CAEP). Originally known as the **Ninth Institute**, the CAEP is located in Science City, a purpose-built enclave four miles north of Mianyang, Sichuan Province, and is subordinate to the General Armament Department of the **People's Liberation Army (PLA)**. Although ostensibly a semi-independent organization, the CAEP is fully integrated into the PLA's intelligence structure and supervises the design, development, and construction of the country's nuclear weapons and acts as an umbrella for 11 affiliated establishments, most of them in the vicinity of Science City: the Institute of Fluid Physics; the Institute of Nuclear Physics and Chemistry; the Institute of Chemical Materials at Zitong; the Institute of

Chemical Engineering; the Institute of Structural Mechanics; the Institute of Structural Materials, near Pingtong; the Institute of Machinery Technology, also near Pingtong; the Institute of Applied Electronics; the Institute of Applied Physics and Computational Mathematics at Beijing; the Institute of Laser and Plasma Physics at Jiading in northwest **Shanghai**; and the Institute of Fine Mechanics, also at Jiading.

CHINA AEROSPACE CORPORATION (CAC). Staffed by an estimated 270,000 employees, the CAC is a major sponsor and beneficiary of state-supported **industrial espionage**. The CAC's headquarters consists of the Comprehensive Planning Department to develop policy; the Scientific Research and Production Department, which plans the country's space launches; the Science and Technology Department to supervise research; the International Cooperation Department, responsible for liaison and negotiations; and the Security Department to protect sensitive information.

Because the CAC is at the heart of the aerospace research conducted by the People's Republic of China's (PRC), it is the recipient of Beijing's intelligence collection efforts in the technology field and, of course, is also a target for foreign espionage and counter-proliferation operations. The CAC and its many subordinate organizations have received considerable advantages from the transfer of research undertaken abroad and, in a comparatively short period of time, have developed sophisticated missile systems capable of delivering nuclear warheads, built rockets to insert payloads into orbit, and exported the technology required to do both. In at least one case, the PRC has also exported to **Pakistan** the means not just to assemble but also to independently manufacture road-mobile short-range ballistic missiles (SRBM).

As well as attracting the attention of foreign agencies concerned with counter-proliferation, the CAC's development of satellite and antisatellite systems has potentially profound strategic implications for the PRC's capacity to engage in technical intelligence collection and prevent others from running similar programs. Since the PRC placed its first satellite, the *Dong Fang Hong-1*, into orbit in April 1970, an entire launch industry has been established that, over the next three decades, put another 54 satellites in the same series into space. In 2011, the PRC controlled approximately 70 satellites, of which 57 were assessed as fulfilling military rather than commercial roles. Among them are three Ziyuan and nine Yaogan reconnaissance vehicles.

In July 2005 and February 2006, partial tests of an antisatellite system were held, culminating in a launch from Xichang in January 2007 of a kinetic kill vehicle, which destroyed its target in a head-on collision in space, thereby creating a major debris field as a hazard to other satellites.

The CAC's subsidiaries include the China Great Wall Industry Corporation, which sells satellite launch services; the China Precision Machinery Import/Export Corporation, which markets missiles overseas; the 701st Research Institute or Beijing Institute of Aerodynamics, which conducts wind tunnel tests; the 707th Research Institute or Institute for Astronautics Information, which collects, analyzes, and distributes aerospace information; the 708th Research Institute of Space Standardization; the 710th Research Institute of Computer Systems; the 307 Factory or Nanjing Chengguang Machine Factory, which assembles solid-fueled missiles and employs a staff of 7,800; the Science and Technology Committee; the China Resource Satellite Application Center, which liaises with the remote sensing community; the Beijing Simulation Center, the largest facility of its kind in Asia; the Beijing Space Technology Test Center; the Shenyang Xinguang Dynamic Machinery Company; the Shenyang Xinle Precision Machinery Company; and the Xinyang Company.

The CAC also supervises the 1st Academy, also known as the China Academy of Launch Technology in Nanyuan, close to the **People's Liberation Army Air Force** base in southern Beijing. The 1st Academy conducts rocket research and develops liquid-fueled surface-to-surface missiles, solid-fueled surface-to-surface, and submarine-launched missiles. Employing a staff of over 27,000 personnel, it operates as the Beijing Wanyuan Industry Corporation and consists of 13 research institutes and 7 factories, including the 1st Planning Department, or Beijing Institute of Astronautical Systems Engineering, working on liquid Systems; the 4th Planning Department, or Beijing Institute of Electromechanical Systems Engineering, working on solid systems engineering; the 11th Research Institute of Beijing Institute of Liquid Rocket Engines, also known as the Beijing Fengyuan Machinery Company, which employs over 900 staff and operates 067 Base liaison office and test site in southwest Beijing; the 12th Research Institute, or Beijing Institute of Automatic Control, which was established in 1958 and is located with the 2nd Academy on Yongding Road in western Beijing, employing a staff of over 800 researching missile-

guidance technology; the 13th Research Institute, or Beijing Institute of Control Devices, which researches gyros and accelerometers and employs over 700 staff; the 14th Research Institute, or Beijing Special Electromechanical Institute, which develops warheads and employs 800 staff; the 15th Research Institute, or Beijing Institute of Special Engineering Machinery, which manufactures ground control equipment; the 702nd Research Institute, or Beijing Institute of Structure and Environmental Engineering; the 703rd Research Institute, or Beijing Research Institute of Materials and Technology; the 704th Research Institute, or Beijing Research Institute of Telemetry, which, since 1991, has developed missile avionics and guidance systems, employing over 1,000 staff; the 200 Factory, or Guanghua Radio Factory, which makes electronic components; the 210 Factory, or the Beijing Jianhua Electronic Instrument Factory, in Nanyuan, making inertial navigational components, staffed by more than 1,200 and closely associated with the 13th Research Institute; the 211 Factory, or Capital Space Machinery Corporation, a general assembly plant in Nanyuan producing liquid systems; the 230 Factory, or Beijing Xinghua Machinery Factory, on Yongding Road; the 7107 Factory, or Inertial Devices Factory, in Baoji, which was associated with the 230 Factory, the Beijing Experimental Electronic Factory (in Muxidi, West Beijing), and the Beijing Wanyuan Sealing Factory.

The 2nd Academy, or the Changfeng Electromechanical Technology Design Academy, based on Yongding Road in Beijing's western suburbs, undertook research and development of air and missile defense systems with a staff of 12,800. Its extensive organization included the 2nd Planning Department, or Beijing Institute of Electronic Systems Engineering, with 700 engineers working on missile defense engineering; the 17th Research Institute, or Beijing Institute of Control and Electronic Technology, in Muxidi, West Beijing; the 23rd Research Institute, or Beijing Institute of Radio Measurement, on Yongding Road, with 1,300 personnel researching radar systems; the 25th Research Institute, or Beijing Institute of Remote Sensing Equipment, working on optical terminal guidance systems; the 203rd Research Institute, or Beijing Institute of Radio Metrology and Measurement, employing more than 250 engineers; the 204th Research Institute, or Beijing Institute of Computer Applications and Simulation Technology, developing computer software and simulation technology; the 206th Research Institute, or Beijing Institute of Mechanical Equipment,

with a staff of 570 working on launchers and ground equipment; the 207th Research Institute, or Beijing Institute of Environmental Features, developing microwave, optical, and laser environmental engineering; the 208th Research Institute, or Information Center, which publishes the 2nd Academy's journal, *Systems Engineering and Electronics Technology*; the 210th Research Institute, or the Xian Changfeng Electromechanical Institute, working on electromechanical systems and employing over 1,500 staff; the 706th Research Institute, developing advanced computers; the 112 Factory, or Xinfeng Machinery Factory, which assembles SAMs; the 123 Factory, which builds air defense missile warheads; the 283 Factory, building ground control systems; the 284 Factory, or the Xinjiang Power Machinery Plant on Yongding Road, making control systems; and the 786 Factory, making radar and guidance systems.

The 3rd Academy, or Haiying Academy of Electromechanical Engineering Technology, in Yungang, southwest Beijing, employs 14,500 staff in 10 research institutes and 2 factories engaged since 1961 on researching and producing antiship and land attack cruise missiles and associated systems. The 3rd Academy includes the Science and Technology Commission; the 3rd Design Department, also known as the Beijing Institute of Electromechanical Engineering, responsible for missile design and engineering and employing over 1,200 staff; the 31st Research Institute, or Power Machinery Research Institute, engaged since 1957 in the development of missile propulsion systems with more than 1,300 personnel; the 33rd Research Institute, or Beijing Institute of Automated Control Equipment, which produces missile inertial navigational systems in Yungang; the 35th Research Institute, or Huahang Institute of Radio Measurement, in Hepingli, Beijing; the 310th Research Institute, which collects, analyzes, and distributes information; the 8357th Research Institute, or Jinhang Institute of Computing Technology, making computerized missile control systems in Tianjin with a staff of 470; the 8358th Research Institute, or Jinhang Institute of Technical Guidance, in Tianjin, which publishes *Infrared and Laser Engineering*; the 8359th Research Institute, or Beijing Special Machinery (*Tezhong Jixie*) Institute, making cruise missile launch equipment; the 119 Factory, making autopilots; the 159 Factory, or Xinghang Electromechanical Factory, in Yungang; the 239 Factory, or Beijing Hangxing Machine Building Factory, on Hepingli Street, Beijing, employing over 3,000 staff assembling cruise

missiles; the 558 Factory, working on autopilots and altimeters; the 781 Factory, or Terminal Guidance System Plant; the 786 Factory, or Ground-Tracking Radar Factory; and the 5013 Factory, making warheads.

The 4th Academy, founded in 1965, employs 3,500 researching and producing solid-fueled motors for ballistic missiles and satellite kick motors and is known as the Hexi Chemical Machinery Company. Also associated with the 4th Academy are the 41st Research Institute, or Shaanxi Institute of Power Machinery, which designs and builds solid rocket motors near Hohhot; the 42nd Research Institute, or Red Star Chemical Institute, of Hubei; the 43rd Research Institute, or Shaanxi Institute of Non-Metallic Materials and Technology, which makes filament winding machines; the 44th Research Institute, or Shaanxi Institute of Electronics; the 46th Research Institute at Hexi; the 47th Research Institute, or Xiangyang Chemical Machinery Corporation; the 7414 Factory, or Shaanxi Hongchuan Machinery Factory; the 7416 Factory, or Shaanxi Changhong Chemical Plant; the 7422 Factory, or Xi'an Space Factory; and the 7424 Factory, or Shaanxi Xianfeng Institute of Machinery.

The Hexi Corporation includes the Synthetic Chemical Engineering Institute, the Inner Mongolia Hongguang Machinery Plant, the Inner Mongolia Hongxia Chemical Plant, and the Inner Mongolia Power Machinery Plant.

The 5th Academy, or China Academy of Space Technology, on Baishiqiao Road in Haidian, northeastern Beijing, researches and produces communications systems and weather satellites and was established in 1968. Employing a staff of 10,000 personnel, the 5th Academy supervises the work of 14 research institutes and factories, including the 501st Research Institute, or Beijing Institute of Spacecraft Systems Engineering, responsible for satellite systems engineering; the 502nd Research Institute, or Beijing Institute of Control Engineering, established in 1956, researching attitude control systems and employing a staff of over 1,400; the 503rd Research Institute, or Beijing Institute of Satellite Information Engineering, founded in 1986, developing satellite communications technology with a staff of more than 300; the 504th Research Institute, or Xian Institute of Space Radio Engineering, developing space communications and remote sensing systems with 1,200 staff; the 508th Research Institute, or Beijing Institute of Space Machinery and Electronic Engineering, based in a building next to the 1st Academy in Nanyuan, working on remote sensing

and recoverable data; the 510th Research Institute, or Lanzhou Institute of Physics, researching optical cryogenics, microgravity, and radiation effects; the 511th Research Institute, or Beijing Institute of Environmental Test Engineering, based in Beijing and Huairou; the 513rd Research Institute, or Yantai Telemetry Technology Institute; and the 529 Factory, or Beijing Orient Scientific Instrument Factory, assembling satellite systems with a staff of 1,200.

The 8th Academy, or **Shanghai** Academy of Space Technology, created in 1961, employs 30,000 personnel at 17 institutes and 11 factories and builds satellites, having developed the LM-2, LM-3, LM-4, and Fengyun meteorological satellites. Associated facilities include the 8th Design Department, or Shanghai Institute of Electromechanical Engineering, employing a staff of 478; 509th Research Institute, or the Shanghai Institute of Satellite Engineering, established in 1969, which researches satellite systems engineering and environmental testing with a staff of more than 600; the Shanghai Precision Machinery Research Institute; the Shanghai Institute of Power Machinery; the 802nd Institute, or Shanghai Institute of Radio Equipment, developing SAM guidance systems and fuzes; the Shanghai Institute of Precision Instruments, making guidance systems; the Shanghai Institute of Electronic Communications Equipment Engineering; the Shanghai Institute of Electromechanical Equipment; the Shanghai Xinfeng Chemical Engineering Institute, researching propellant technology; the Shanghai Institute of Science and Technology Information for Electromechanical Engineering; the Shanghai Institute of Precision Metrology and Test Engineering; the 809th Institute, or Shanghai Xinwei Electronic Equipment Research Institute, established in 1979 and working on tactical weapons and satellite control computers; the Shanghai Xinli Institute of Power Equipment, building engines and motors; the Shanghai Institute of Space Power Sources; the Shanghai Spaceflight Automatic Control Equipment Research Institute; the Shanghai Institute of Spaceflight Telemetry, Control, and Telecommunications Engineering; the Shanghai Institute of Video and Telecommunications Equipment Engineering; the Shanghai Spaceflight Architecture Design Institute; the Shanghai Xinzonghua Machinery Factory; the Shanghai Xinjiang Machinery Factory; the Shanghai Xinxin Machinery Factory; the Shanghai Xinhua Radio Factory; the Shanghai Xinya Radio Factory; the Shanghai Xinguang Telecommunications Factory; the Shanghai Xinyu Power Supply Factory;

the Shanghai Xinli Machinery Factory; the Shanghai Broadcast Equipment Factory; the Shanghai Instrument Factory; and the Shanghai Wire Communication Factory.

The 9th Academy, or China Academy of Space Electronics Technology, in Beijing's Haidian district at 8 Fucheng Road, was established in 1993 and runs sites in Nanyuan and near Xi'an engaged in the development of specialized computers, integrated circuits, and other microelectronic devices, with a staff of more than 10,000 in 9 institutes, 10 manufacturing plants, and 5 technical centers, including the 771st Research Institute, or the Lishan Microelectronics Institute, which was established in the 1960s and manufactures missile and satellite-related computers; and the 165 Factory.

The 061 Base, also known as the China Jiangnan Space Industry Group, employs 6,500 at some 33 research institutes and factories, building surface-to-air missiles at Zunyi and Kaishan in Guizhou Province. The component units include the 302nd Research Institute, or General Institute of Military Products; the Jiangnan Electromechanical Design Institute; the 38th Research Institute; the 303rd Research Institute; the Wujiang Machinery Factory; the Nanfeng Factory; the Xinfeng Instrument Manufacturing Corporation; the Qunjian Machinery Factory; the Chaohui Electromechanical Factory; the Meiling Factory; the Honggang Electromechanical Factory; and the Guizhou Gaoyuan Machinery Factory, which assembles SAM launchers.

The 062 Base, or the Sichuan Aerospace Corporation, employs more than 20,000 staff at Chengdu, Sichuan Province, developing liquid-fueled ballistic missiles, launch vehicles, and antiship missiles. Other associated facilities include the Chongqing Aerospace Electromechanical Design Institute, employing 800 staff; the Sichuan Changzheng Mechanical Factory in Wanyuan, in northern Sichuan, employing 5,000 staff; the Chongqing Bashan Instrument Factory, making telemetry equipment; the Fenghuo Machinery Factory, making servo-mechanical devices; and the Liaoyuan Radio Factory, producing space flight controls. Located in Xuanhua, Sichuan Province, are the Tongjiang Machinery Factory; the Mingjiang Machinery Factory in Dachuan; the Pingjiang Instrument Factory, making control systems in Dachuan; and the Chuannan Machinery Factory, producing missile system igniters.

The 066 Base or Sanjiang Space Group, employing a staff of 17,000 at Xiaogan, north of Wuhan, with a production facility at Yuan'an, in western

Hubei Province and an administrative office in Wuhan, develops solid-fueled tactical ballistic missiles and stealth/counter-stealth technology. Established in August 1969 as a production center for 3rd Academy antiship missiles, the base began independent development of the Dong Feng-11 CSS-7 road-mobile, solid-fueled, short-range ballistic missile (SRBM), designed by Wang Zhenhua, in 1975. The export version of the DF-11 is designated the M-11, which was supplied by the China Precision Machinery Import-Export Corporation and the China Great Wall Industry Corporation to Pakistan from 1990 for \$15 million. A further payment of \$83 million was made in late 1992 to the same company, according to a U.S. intelligence report circulated in 1994.

Also associated are the Sanjiang Space Group Design Institute; the Hubei Redstar (Hongxing) Chemical Institute; the 42nd Research Institute, in Xiangfan, Hubei Province; the Hubei Hongfeng Machinery Plant, established in 1970 to develop electromechanical integration in Yuan'an; the Wanshan Special Vehicle Machinery Factory in Yuan'an; the Hubei Jianghe Chemical Factory in Yuan'an; the Xianfeng Machinery Factory in Yuan'an; the Wanli Radio Factory in Yuan'an; the Honglin Machinery Factory in Xiaogan; the Hubei Hongyang Machinery Factory in Yuan'an; the Jiangbei Machinery Factory in Yuan'an; and the Wanfeng Factory in Yuan'an.

The 067 Base, or Shaanxi Lingnan Machinery Corporation, develops liquid engines and inertial guidance systems for launch vehicles. Employing more than 1,200, 067 Base runs five research institutes and four factories, including the Shaanxi Engine Design Institute; the Beijing Fengyuan Machinery Institute; the Shaanxi Institute of Power Test Technology; the Xi'an Changda Precision Electromachinery Institute; the Shaanxi Hongguang Machinery Factory; the Shaanxi Cangsong Machinery Factory; the 16th Research Institute; the 165th Research Institute; the 204 Factory; the 710 Factory; the 7103 Factory (Hongguang); the 7107 Factory; and the 7171 Factory, making inertial devices.

The 068 Base, or Hunan Space Agency, in Changsha, develops electromechanical equipment for surface-to-air missiles at one research institute and five factories, including the 7801 Research Institute at Changsha, Hunan Province; the 7803 Factory, producing superhard materials (*chaoying cailiao*); the Hunan Taishan Machinery Factory; the

804 Factory; the 861 Factory; the Hunan Zhujiang Instrument Factory; and the Hunan Electromechanical Instrument Factory.

The Yunnan Space Group, previously linked to the 3rd Academy, established in 1969, and moved to Kunming in 1987, manages six factories and eight companies, employing 3,500 staff.

The **Harbin Institute of Technology** includes the Academy of Astronautics; the Academy of Material Science and Engineering; the Department of Astronautics and Physics; the Department of Applied Chemistry; the Department of Applied Physics; the Department of Communications Engineering; the Department of Computer Science and Engineering; the Department of Control Engineering; the Department of Electrical Engineering; the Department of Mathematics; the Department of Mechanical Engineering; the Department of Power Engineering; the Department of Precision Instrumentation; the Department of Radio Engineering; the Department of Space and Opto-Electronic Engineering; the Robotics Research Institute; the Plating Research Center; the Analysis and Measurement Center; the Inertial Navigation Test Equipment Center; and the Simulation Center.

The entire CAC, with all its numerous components, remains an organ of the PRC government and, in many cases, has been seen to be the recipient of research stolen from foreign companies, principally in the United States. Recent examples include **Greg Chung** and the 1996 enquiry conducted into the **Long March-3D** failures, which led to restricted Loral technology being passed to PRC aerospace engineers.

In 1993, the PRC's State Council established a China National Space Agency, apparently in an effort to demilitarize some of the country's aerospace program and emulate the U.S. National Aeronautics and Space Administration (NASA), but the organization never acquired full responsibility for all research, development, and production, which remained largely in the hands of the military, leaving the civilian China National Space Agency as an intermediary with its foreign counterparts. In 1999, the state space sector was divided into two giant competing conglomerates (the Chinese Aerospace Science and Technology Corporation, which includes the China Great Wall Industry Corporation and the China Satellite Communications Corporation, and the smaller Chinese Aerospace Science and Industry Corporation, which encompasses 150

separate enterprises) and employed more than 100,000 people. *See also CHINESE NUCLEAR WEAPONS; TECHNOLOGY ACQUISITION.*

CHINA AID COUNCIL. A front organization created and controlled by the Communist Party of the United States of America, the China Aid Council sponsored two publications, *China Today* and *Amerasia*, which peddled a line sympathetic to the Communist cause while ostensibly appearing to be politically neutral, using aliases on the journals' mastheads to conceal the true identities of the editorial staff. Backed by a well-funded foundation supported by plenty of entirely respectable academics and philanthropists who were unaware of the organization's true role, the periodicals were intended to influence public opinion and policy makers, but their true purpose was exposed by Elizabeth Bentley in 1945, when she named the China Aid Council's executive director, **Mildred Price**, as a Soviet spy.

CHINA INSTITUTE OF INTERNATIONAL STRATEGIC STUDIES (CIISS). Headed by retired general Xiong Guangkai, the former head of the **Military Intelligence Department (MID)**, CISS is the MID's foreign policy and national security research organization; although, the integrated nature of the relationship with the **Second Department** of the **People's Liberation Army General Staff** is not publicly acknowledged. The permanent staff are all current or recently retired **People's Liberation Army** officers and routinely switch between the CISS and posts in the MID. The CISS is located in Luoyang and Nanjing and publishes the fortnightly *Wai Jun Dongtai (Foreign Military Trends)* for distribution throughout the armed forces.

CHINA INSTITUTES OF CONTEMPORARY INTERNATIONAL RELATIONS (CICIR). A cover organization originally run by and for the **Eighth Bureau** of the Chinese **Central Investigation Department**, the China Institutes of Contemporary International Relations (*Xiandai Guojii Yanjiu Yuan*), said to have been established at the behest of **Zhou Enlai**, is wholly integrated into the **Eighth Bureau** (later the **Eleventh Bureau**) of the **Ministry of State Security (MSS)** and, based in northwestern Beijing, acts as an analytic resource, publishing its own journal, *Xiandai Guoji Guanxi (Contemporary International Relations)*. The CICIR serves as the analysis branch of mainland China's intelligence apparatus and employs

some 150 research analysts and 220 support staff, maintaining links with foreign policy research organizations and frequently hosting visiting academics. Between January 2007 and June 2009, the CICIR participated in 119 scholar exchanges and fact-finding missions with foreign institutions and academic bodies. Its academic staff is shared with the **Beijing Institute of International Relations**, another MSS front.

CHINA NATIONAL NUCLEAR CORPORATION (CNNC). Created in September 1988, the CNNC replaced the Ministry of Nuclear Industry and acts as an umbrella organization responsible for the development of civil nuclear power and nuclear weapons and the import and export of nuclear technology. The CNNC supervises fuel processing and production, the manufacture and management of civil power plants, hydrogen bombs, and waste disposal, and the acquisition and sale of technology.

The close association of **Chi Mak** with a CNNC official, as revealed by a photograph recovered by the **Federal Bureau of Investigation** of the spy in China accompanied by his wife and a CNNC official, suggested that the CNNC was also engaged in illicit procurement of nuclear technology. Subordinate to the CNNC are the Institute of Materials, formerly the Special Parts Factory, responsible for fabricating nuclear weapons; the China Atomic Energy Authority, which is based in Beijing and liaises with the International Atomic Energy Authority in Vienna; the China Institute of Atomic Energy in Tuoli; the Nuclear Power Institute of China in Chengdu, responsible for the design, construction, and operation of all the country's reactors; and the China Nuclear Energy Industry Corporation (CNEIC), an export organization identified in August 1996 by a U.S. **National Security Agency** intercept as selling nuclear components to an unsafeguarded Pakistani weapons laboratory. *See also* CHINA ACADEMY OF ENGINEERING PHYSICS (CAEP); CHINESE NUCLEAR WEAPONS.

CHINCOM. The generic **Federal Bureau of Investigation (FBI)** codename for a series of counterintelligence operations conducted by Division 5, CHINCOM was intended to recruit Chinese Communists in the **United States**. One success was the recruitment of a senior ethnic Chinese who entered into an ideological debate with an FBI informant and was later enrolled as an informant himself.

CHINESE COMMUNIST PARTY (CCP). With its inspiration drawn from the Bolshevik Revolution, the CCP (*Zhongguo Gongchandang*) began in **Shanghai** in 1921 and, like its Russian model, relied upon a ubiquitous security arm to eliminate dissent and protect the state from counterrevolutionaries. The party's principal instrument of repression was the **Central Department of Social Affairs (CDSA)**, a ruthless organization known as the *Zhongyang Shehuibu* and headed by **Kang Sheng**. Later, the CDSA would evolve into the **Central Investigation Department (CID)**, headed by **Li Kenong**, but would be abolished during the **Cultural Revolution**, when some of its intelligence responsibilities were absorbed by the **Second Department** of the **People's Liberation Army's General Staff**, leaving internal security in the chaotic hands of the Red Guards. The CID would be reestablished in 1972 and, in 1976, headed by Zhou Shaozheng. He was purged in 1982, and the following year, the CID was subsumed into a new **Ministry of State Security** under Lin Yun. In 1985, he would be replaced by Jia Chunwang, following the defection of **Yu Qiangsheng**.

In all its various forms, the totalitarian state's security apparatus has served the party rather than the country, based on the Communist Party of the **Soviet Union**'s reliance on the NKVD and then the KGB as its sword and shield. However, during the rule of **Mao Zedong**, both the CCP and its security apparatus remained obedient to the chairman, who used the party as a vehicle for a series of radical political campaigns, including the Hundred Flowers of 1957, the Great Leap Forward in 1958, and the decade-long **Cultural Revolution**, that kept him in power and served to eliminate any rivals. Purges were an essential component of these campaigns, and the party formalized the procedures, conducting them by creating various bureaucratic entities, such as the Central Case Examination Group, which supervised the expulsions of an estimated two million suspects and the reeducation of cadres. After Mao's death, the Central Disciplinary Inspection Committee rid the party of the 17 million members recruited during the Cultural Revolution, and some 30 million surviving victims were rehabilitated by Central Party Rectification Working Leadership Commission, which also punished those held responsible for the excesses, including some like Kang Sheng and Xie Fuzhi, who were tried posthumously and expelled. While these measures restored order, the indivisible nature of the party and government remained intact, with the

party exercising power through its pervasive presence in every office, factory, ideological classroom, cultural gathering, youth movement, school, university, and village.

Following the Tiananmen Square pro-democracy protests of June 1989, which were suppressed by the 27th Group Army and elements of the 17th Airborne Corps, a further purge was conducted, with a million cadres sent for rustication and reeducation, and the People's Liberation Army's Central Military Commission exerted more influence over the Central Committee. While the democracy movement was ruthlessly suppressed, the party responded to the public criticism by introducing measures to reduce the endemic nepotism and corruption.

Despite these reforms, the CCP organs continue to oversee both the central and regional governments; although, the party has evolved and embraced globalization and increasing commercialism, it retains a firm grip on every aspect of political and economic life in the PRC. *See also* CENTRAL DISCIPLINE INSPECTION COMMISSION (CDIC).

CHINESE COURSE. In 1951, the British Joint Services School for Linguists (JSSL) was established at Bodmin in Cornwall and four years later moved to HMS *Bruce* at Crail in Fife, Scotland. Hitherto, the individual branches of the armed forces had to run their own language courses, with the Royal Air Force (RAF) teaching Chinese to selected students at Kidbrooke in South London.

Initially intended to train Russian interpreters and intercept operators, a Chinese course was created soon afterward, with students drawn from national servicemen drafted into the forces. The Chinese course included attendance at London University's School of Oriental and African Studies (SOAS) in Russell Square or at Cambridge University, with RAF personnel billeted at RAF Uxbridge. The course usually lasted a year, including a final month spent at RAF Wythall for technical training. From October 1952, those passing the final exam were posted to Lymun camp, near Shaukiwan on **Hong Kong**, for duties as intercept operators, manning positions at an RAF radio station, Old Belvedere, on Victoria Peak.

In June 1956, the Chinese Course was moved to Worth Matravers in Dorset and then, in April 1957, to RAF Pucklechurch in Gloucestershire. In September 1959, it shifted to RAF Tangmere in West Sussex and, in September 1964, was transferred to RAF North Luffenham in Rutland. Altogether, an estimated 250 linguists underwent the JSSL Chinese Course,

and most were posted to **Little Sai Wan** on Hong Kong. *See also* CHINESE COMMUNIST PARTY (CCP); GREAT BRITAIN.

CHINESE EMBASSY BOMBING. On 7 May 1999, the new People's Republic of China embassy in Belgrade received a direct hit from six 2,000-pound GBU-31 precision bombs dropped by a **United States** Air Force B-2 Spirit stealth bomber during an air raid conducted by the North Atlantic Treaty Organization (NATO) from Whiteman Air Force base in Missouri. Three Chinese journalists, Shao Yunhuan, Xu Xinghu, and Xu's wife, Zhu Ying, were killed, and the military attaché, Ven Bo Koy, was badly injured.

The five-story building at Bulevar Umetnosti 2 had been erroneously identified as a military target, the Yugoslav Federal Directorate of Supply and Procurement, and an investigation into the blunder was conducted by Britt Snider, the **Central Intelligence Agency's (CIA)** inspector general. He discovered that a CIA contract officer had relied upon an out-of-date street map to locate the building and had used a parallel street to work out the exact street address. A further review of the target list, intended to highlight hospitals, schools, churches, and diplomatic premises, had failed to spot the mistake, and a warning from an analyst familiar with the city had gone unheeded. The correct site, a warehouse suspected of holding missiles parts destined for Iraq and Libya, was located 300 yards away, and the error was spotted by a CIA analyst who made a call to the U.S. Department of Defense Task Force in Naples, Italy, suggesting the coordinates were wrong. He gave a second, follow-up warning, but by then, the aircraft had been dispatched on its 15-hour flight, and it was too late to correct the data.

As a result, the director of central intelligence, George Tenet, fired the contract employee and reprimanded six others in the management chain, making them ineligible for promotion or financial rewards for a year, while commending the lone analyst. The United States government issued an apology to Beijing and compensated the family of the three Chinese killed in the accident and the 20 others injured, but the damage to Sino-American relations proved considerable and prompted a group of ostensibly independent computer hackers based in the PRC to launch a concerted attack on U.S. government-related Internet websites. *See also* CYBER ESPIONAGE.

CHINESE NAVAL STRENGTH. Western intelligence analysts monitor the development of the **People's Liberation Army (PLA)** as a means of

assessing the country's military power and as one method of gauging Beijing's ambitions. Naval strength is considered a relatively easy target on which to collect intelligence, as it is hard to conceal shipbuilding yards from overhead reconnaissance, and throughout much of the Cold War, the PLA's Navy was a relatively insignificant coastal force incapable of venturing further afield. In terms of threat, the absence of modern submarines or nuclear missiles provided reassurance that the country had adopted a purely defensive posture. However, in recent years, the PLA Navy has attracted the attention of analysts because of a demonstrable investment in the very specific areas that create anxiety among potential adversaries.

In May 2009, the PLA Navy consisted of 75 surface warships, amounting to 26 destroyers, 48 frigates, with an additional 77 fast attack craft. The Navy's submarine fleet totaled 57 attack diesels, including 7 Russian Romeos and 21 Kilos. The Navy's antiship missile arsenal is mainly of Russian origin, principally the supersonic Sizzler and Sunburn weapons; although, locally built, reverse-engineered versions are replacing them.

A recent expansion of the PLA Navy's strength is in large measure a reflection of the country's growing commitment to protecting the sea lanes from **piracy** and to enforce the country's strategic goals in the Straits of **Taiwan** and further afield, into the Western Pacific. The priorities have been assessed as coastal defense, maritime security, and protection of the claimed 200-mile economic exclusion zone, as well as the more traditional preoccupations of exercising sovereignty in the disputed territories of the Senkaku Islands in the East China Sea, the Paracel Islands, and the Spratly Islands in the South China Sea. These unresolved historical foreign policy disagreements bring the People's Republic of China (PRC) into conflict with Vietnam, **Japan**, Brunei, the Philippines, Malaysia, and Taiwan. In pursuit of these objectives, the PLA Navy has embarked on a 10-year modernization program that is intended to expand the surface and submarine fleet and enhance the Navy's intelligence, surveillance, and reconnaissance capabilities. In addition to a commitment to develop smart torpedoes, new sea-mines, supersonic cruise missiles, and an antiship ballistic missile, the Navy announced the construction of an aircraft carrier and a new generation of equipment and weapons.

Since 2001, the Navy has commissioned 22 modern attack submarines, including 8 of the new quiet, upgraded Russian *Kilo* diesels, 2 *Shang*

nuclear vessels, as well as 2 relatively quiet *Yuan* and 10 *Song* diesels. In addition, the Navy is building a pair of *Jin* nuclear-powered ballistic missile boats, armed with 12 new but as yet untested JL-2 submarine-launched ballistic missiles (SLBM), designated the CSS-NX-4, to enhance the single *Xia*, a troubled submarine, which has never been observed to undertake an extended patrol. The JL-2 is based on the DF-15 (CSS-6) missiles with an estimated range of 2,500 kilometers.

The Navy's surface strength, consisting of 2 *Luhu*-class guided-missile destroyers and 5 *Jiangwei*-class guided-missile frigates, has improved since 2001 with the commissioning of 6 indigenously built *Layang*-class destroyers, 11 frigates, a pair of Russian *Sovremenny II* guided-missile destroyers armed with the supersonic SS-N-22 Sunburn missile (designed to defeat American Aegis warships), and more than 40 *Houbei* fast catamaran-configured attack craft armed with antiship cruise missiles. The Navy has also invested in 31 new amphibious ships, bought 4 *Zubr*-class assault hovercraft from the Ukraine, built 6 minelayers, and acquired the uncompleted Ukrainian aircraft carrier *Varyag*, ostensibly as a floating casino but actually to undergo conversion at Dalian and sea trials in 2011.

The PRC's acquisition of military hardware from the Ukraine and the Russian Federation are of intense interest to the U.S. Office of Naval Intelligence and other community analysts and, in recent years, have included 50 T-72 tanks, 24 Mil-17 assault helicopters, 100 SA-10 long-range air defense missiles, and 10 Il-76 transports. These purchases are considered part of a long-term investment effort not only to build up the country's capability but also to obtain models to reverse engineer, such as the Russian SA-7 shoulder-fired antiaircraft weapon, which has been copied and manufactured locally. Similarly, the F-10 fighter is thought to have been built with American technology supplied by the Israelis after the cancellation of the Lavi project.

Despite this modernization program, the Navy's aviation branch remains weak, with an estimated total of 322 mainly elderly Soviet-designed aircraft, which includes 24 new Russian Sukhoi-30 fighter-bomber and 18 locally developed JH-7A fighter bombers.

The PRC's potential adversaries in the region, including Singapore, Malaysia, Indonesia, **South Korea**, **Japan**, and especially Taiwan, have responded by expanding their own naval strength, with **Australia** doubling its submarine fleet to 12 and Vietnam buying 6 Russian Kilos and 12

Sukhoi-30 jets. **India** has also announced the purchase of three Russian stealth frigates and three American maritime surveillance aircraft, built six attack submarines, leased two Russian nuclear submarines, started the construction of an aircraft carrier, and, in July 2009, launched a Russian-designed nuclear-powered ballistic missile boat.

The PRC's naval modernization and expansion was demonstrated in April 2009 at a fleet review conducted at Qingdao to celebrate the PLA Navy's 60th anniversary when 25 indigenously built vessels were put on display before invited foreign guests, thus ensuring that Western intelligence analysts clearly understood Beijing's commitment to projecting its newfound sea power. *See also CHINESE NUCLEAR WEAPONS; UNITED STATES OF AMERICA (USA).*

CHINESE NUCLEAR WEAPONS. The commitment of the People's Republic of China (PRC) to the development of atomic weapons, made in January 1955, became clear to external analysts in 1957 when **Mao Zedong** opened a debate between "modernizers" and "traditionalists" within the Chinese military establishment, which culminated in December 1957 in an article published in *Shijie zhishi* that advocated Soviet sharing of atomic technology in response to the **United States**'s decision to develop weapons jointly with **Great Britain** and deploy arsenals across the North Atlantic Treaty Organization (NATO) membership in pursuit of a doctrine of limited nuclear conflicts using tactical weapons. The following month, a high-level delegation arrived in Moscow led by Marshal Peng Dehuai (the minister of national defense), General Su Yu (the PLA chief of staff), and Marshal Ye Jianying to negotiate with Marshal Rodion Malinovsky for nearly three weeks.

Clearly, the military mission's objective had been to persuade the Kremlin that Soviet technical aid should be stepped up so the PRC could develop its own atomic weapons and at least counter American support for **Taiwan**. However, at the conclusion of their meetings, Western analysts detected a curious divergence in views. Whereas Marshal Peng referred to "the heroic Soviet army" being "equipped with the latest nuclear weapons," Malinovsky remarked that "the might of our armies is based not only on the fact that they are armed with modern first-class weapons, but primarily on the fact that they are closely linked with their people," an observation that was interpreted to mean that the **Soviet Union** was not quite so enthusiastic about sharing nuclear military secrets with its Chinese friends. As the truth

dawned on the Chinese, their public pronouncements subtly changed, and propaganda from Beijing suggested that weapons alone did not decide the outcome of war and that the American “paper tiger” had been beaten in Korea even though the PRC did not possess nuclear weapons.

In fact, the exchanges in Moscow had taken place against a backdrop of increasing political tension between Mao and Nikita Khrushchev and the latter’s decision the following year to withdraw all Soviet technicians from the PRC, one of the first overt manifestations of the gravity of the **Sino-Soviet split**. Nevertheless, Western intelligence analysts, seeking to divine what was really happening in the Sino-Soviet relationship, concluded in 1962:

The Chinese Communists have no atomic or nuclear weapons and little hope of acquiring more than a token nuclear capability in the near future. Even if they should test an atomic device in the near future it will probably take at least a decade for them to perfect simple modern delivery vehicles. This means that China cannot use its own military to advance its political goals except in a very limited sense. For achieving the major political goals—the absorption of Taiwan, for example—it must rely on Soviet military power, which is not always at Chinese disposal.

This assessment made by the **Central Intelligence Agency (CIA)** followed five years of **U-2** overflights of the PRC, which had commenced from **Pakistan** in August 1957, and just two years later, in October 1964, a Chinese bomb test was detected as Lop Nor in **Xinjiang** Province, an event that was eloquent proof of the inadequacy of the CIA’s prediction.

Initial experiments with high explosives had been conducted at the Tuoli laboratory, 20 miles south of Beijing, and a test detonation, without enriched uranium, was completed successfully on 20 November 1963 and went undetected. By the end of the year, the enrichment facility at Lanzhou, in Gansu, was in production and, on 14 January 1964, delivered its first consignment of 90 percent enriched uranium, which was then machined in readiness for a bomb that was assembled at **Malan**. The test of the 22-kiloton device, weighing 3,410 pounds, detonated on the top of a steel tower 330 feet high, took place on 16 October 1964.

The speed with which the PRC detonated a bomb, based on the **FAT MAN** weapon built at Los Alamos, took Western intelligence analysts by surprise. Study of the air sample recovered after the test found that the first test had not contained any plutonium, which meant that the weapon had been a third of **FAT MAN**’s weight but with a yield four times more powerful than the **LITTLE BOY** plutonium device.

The third test, in the spring of 1966, with a yield of 200 to 300 kilotons, revealed lithium-6 in the isotope traces, indicating that a booster had been employed in the chain reaction, a strong indication of a Chinese commitment to the development of thermonuclear weapons. This was followed at the end of the year with a test of a 122-kiloton weapon, and then, on 17 June 1967, an aircraft dropped a 3.3-megaton uranium-only bomb. Thus, the PRC had accomplished the almost impossible, detonating its first hydrogen bomb without any plutonium, and had done so in just 32 months, a feat that had taken the United States 7 years to achieve.

Success had been achieved with less than 4 percent of the tests conducted by the United States, and analysts concluded that PRC scientists, led by **Qian Xuesen**, had received vital assistance from the atom spy Klaus Fuchs and his former Manhattan Project colleague **Joan Hinton**. In addition, it was believed that the PRC had collected air samples from American tests in the Pacific in 1958 and 1962 and perhaps had benefited from monitoring Soviet tests in **Kazakhstan**. Even so, considering the country's economic plight, the feat was quite astonishing. During five years of atmospheric atomic tests, the PRC used two steel towers and delivered a further six weapons by air. The first underground test, in a tunnel mined into a mountain, was conducted on 23 September 1969, and the last atmospheric test conducted by any nuclear power was a 700-kiloton airburst on 16 October 1980.

As well as reporting on the PRC's nuclear program, the CIA also monitored Beijing's investment in delivery vehicles, which were based on the Soviet R-1 rocket, designated the SS-1, which was actually a modified German V-2 and later became the Dong Feng (East Wind) short-range ballistic missile (SRBM). The Dong Feng-2, a copy of the R-5 Shyster and designated CSS-1 ("China surface-to-surface"), with a range of 1,250 kilometers, was deployed for the 1966 missile test at Lop Nor.

By April 1984, the **Defense Intelligence Agency (DIA)** had monitored 29 Chinese nuclear tests and predicted that future improvements would depend on both overt contact with U.S. scientists and technology and covert acquisition of U.S. technology.

There is evidence that the Chinese have been successful in assimilating into their nuclear weapons program United States technology in areas such as high explosive, radiochemistry, metallurgy, welding, super computers, numerical modeling, high speed photonics, and underground drilling. Throughout the history of the Chinese nuclear weapons program, they have followed closely advances in western technology. Increased access to this technology and

continued Chinese efforts will in the 1980s and early 1990s show up as qualitative warhead improvements in terms of: (1) increased warhead reliability and confidence, (2) development of more compact warheads, especially for tactical nuclear applications and possibly for MRV warheads, (3) increased hardening of warheads in a nuclear antiballistic missile environment, (4) tailored output devices, such as enhanced radiation and (5) improved warhead safety, storage, and logistics procedures. Thus, in some areas, the gap between United States and Chinese nuclear technology may begin to narrow.

Subsequent Chinese missile variants included the DF-3 (CSS-2) intermediate-range ballistic missile, sold in 1981 to Saudi Arabia; the DF-4 (CSS-3) **Long March-1** two-stage booster with a range of 7,000 kilometers; the DF-5 (CSS-4), a silo-based two-stage rocket with a 12,000-kilometer range; the DF-11 (CSS-7) road-mobile, solid-fueled SRBM; and the DF-15 (CSS-6) with a range of 2,500 kilometers. In January 1999, a Pentagon analysis assessed that there were 150 CSS-6 M-9 SRBMs aimed at Taiwan, a figure that would increase to 600 by 2005, based on production statistics from the China Academy of Rocket Motor Technology, formerly the 5th Aerospace Academy.

The DIA reported in January 1996 that Liu Huaqing, chairman of the Central Military Commission, had visited Moscow and Kiev recently and expressed an interest in buying components for the SS-18 Satan heavy intercontinental ballistic missile (ICBM). Liu's visit had followed a trip to Beijing made by the Ukraine's President Leonid Kuchma, who, the DIA observed, was a rocket engineer and had himself once been a director of the SS-18 production plant at Yuzhnoye.

The DIA noted that while the SS-18 booster rocket could be used for placing satellite payloads in orbit, it was not an obvious choice to carry sensitive equipment and, of course, also had a primary military function as a nuclear warhead delivery vehicle.

Beijing is working on an improved version of the CSS-4 ICBM and seems to be planning to incorporate MIRV technology into its missile force. China's interest in Russian SS-18 military technology probably is linked to Beijing's strategic force modernization, particularly the areas of missile guidance, accuracy, rocket engines, and warhead improvements. Incorporating SS-18-related military guidance or warhead technologies into China's Strategic Missile Forces would greatly improve Beijing's ability to threaten targets in the United States.

The U.S. National Air Intelligence Center reported in November 1996 that SS-18 technology could enhance the performance of the DF-31 ICBM with a range of 5,000 miles and the DF-41 with an estimated reach of 7,500 miles, each armed with a 500-kiloton-yield warhead.

Since that date, Beijing is estimated to have maintained a substantial stockpile of around 180 nuclear weapons, including warheads for 18 CSS-4 Mod 2 silo-based ICBMs capable of reaching the West Coast of the United States. According to the DIA, the principal ICBM production complex, located at an underground site at Wanyuan, was closed in December 1998 and relocated at a modern facility at Chengdu. The PRC's strategic rocket capacity has been assessed as 70 DF-31 solid-fueled, road-mobile MRBMs with a range of 8,000 kilometers and 12 CSS-NX-4 SLBMs for the *Xia* submarine.

Having successfully built an arsenal of nuclear warheads but failing to sign the nuclear Non-Proliferation Treaty until March 1992, **Deng Xiaoping** adopted a policy of proliferation and, in 1982, passed the designs of the uranium CHIC-4 weapon to Pakistan. In February 1983, China agreed to build a duplicate of the reactor at the Beijing Institute of Atomic Energy Research in a remote location, at Aïn Oussera, high in Algeria's Atlas Mountains. Although the El Salam reactor would be described, eight years later, as a research facility, the secret deal raised the suspicion that China had agreed to help Algeria develop nuclear weapons.

On 26 May 1990, a test was conducted at Lop Nor for the Pakistanis. Thereafter, the principal Pakistani physicist, A. Q. Khan, peddled the CHIC-4 bomb design to **North Korea**, Iran, and Libya and attempted to sell it to Iraq. According to communications intercepted by the **National Security Agency (NSA)**, in September 1996, the China Nuclear Energy Industry Corporation (CNEIC) sold him 5,000 ring magnets, components for upgrading enrichment centrifuges, for \$70,000. This event was significant because only three months earlier, on 11 May, the PRC's foreign ministry had issued a statement confirming that "China will not provide assistance to unsafeguarded nuclear facilities." However, soon afterward, there was a further shipment of diagnostic equipment and a furnace for use with high-technology metals, and on 14 September, the CIA reported that Ghulam Kibria, the Pakistani nuclear and missile procurement officer in Beijing, had met with CNEIC officials to discuss the measures to be taken to conceal the purchase's true destination.

The Chinese told Kibria they needed end user certificates for the sale and all future dual-use shipments and other equipment for Pakistan's unsafeguarded facilities and vowed to discuss the certificates only with a "third party"—apparently the US—probably to demonstrate that Beijing is complying with its May commitment.

. . . Kibria suggested possible language for the false end user certificates to make it appear that one item—possibly the diagnostic equipment—was intended for the safeguarded Chasma nuclear power plant, which Chinese firms are building.

The intercept indicates Kibria also suggested to the Chinese that all remaining contracts, apparently for unsafeguarded facilities, be canceled and new ones drawn up naming unobjectionable end users.

Kibria claimed the Chinese reacted positively to the idea, but added this kind of agreement is “dangerous.” Such a subterfuge probably would require the approval of senior Chinese government leaders.

In December 2003, following a lengthy joint Anglo-American intelligence investigation of Khan, scientists in Tripoli surrendered details of Libya’s nuclear weapons development program to International Atomic Energy Authority inspectors and included a plastic bag marked “Good Looks Tailor Shop” containing the CHIC-4 blueprints.

As well as studying the PRC’s stockpile of nuclear weapons, CIA and DIA analysts scrutinized delivery systems, which included some 50 Su-27 fighters built under license and armed with AA-11 radar-guided missiles; the F-10 indigenous multi-role fighter; the F-8 interceptor; the FB-7 light strike aircraft; and an advanced stealth fighter project, the XXJ. *See also* AIRBORNE COLLECTION; COX REPORT; INDUSTRIAL ESPIONAGE; SENIOR BOWL.

CHINESE SIGNALS INTELLIGENCE. The People’s Republic of China (PRC) operates a network of signals intelligence intercept stations close to its foreign borders, with large installations on Lake Kinghathu, Jilemutu, and Jixi, monitoring Russian traffic in the northeast. Others at Erlan and Hami cover Mongolia. Indian communications are intercepted at Chengdu and Dayi, with Vietnam monitored from Kunming. In addition, there are large intercept facilities at Lingshui on Hainan Island, at Shenyang, near Jinan, in **Shanghai**, and in Nanjing. Surveillance on **Taiwan** is maintained by a chain of sites in the Fujian and Guangdong military districts. An estimated eight naval platforms also contribute to the PRC signals intelligence matrix, with an analytical center integrated into the South Sea Fleet headquarters at Zhanjiang. Intelligence collection aircraft include Antonov-12 Cubs and converted Tu-154 transports. *See also* THIRD DEPARTMENT.

CHIN PENG. The secretary-general of the Malayan Communist Party, in March 1947, Chin Peng succeeded **Lai Tek**, who had been exposed as a

Special Branch mole and murdered. Chin Peng led the PRC-backed insurgency in Malaya during the Emergency, which was declared in June 1948 and lasted 12 years. In 1955, Chin Peng established contact with the Malaya Special Branch and attempted, unsuccessfully, to negotiate a truce. Two years later, he abandoned his guerrilla headquarters close to the Thai border and fled to Beijing. In 1989, Chin Peng announced the end of hostilities against Malaysia and, in 1994, traveled to **Australia**. Four years later, he visited Shoreham in Sussex to lunch with his old adversary, and Lai Tek's handler, Jon Davies of the Malaya Special Branch. When Davis died, in October 2006, a tribute to him from Chin Peng was read at the funeral. *See also GREAT BRITAIN.*

CHI TONG KUOK. On 17 June 2009, Chi Tong Kuok, a citizen of Macau, was arrested in Atlanta, Georgia, while he was in transit for Panama, where he was to meet undercover federal agents who intended to seize controlled technology. The arrest was the result of a lengthy sting operation conducted by Immigration and Customs Enforcement (ICE) and the Defense Criminal Investigative Service (DCIS).

Kuok was escorted back to San Diego, California, where he was indicted for attempts to acquire, on eBay, sensitive defense technology used to encrypt American military and government communications and then export the items to the People's Republic of China (PRC). He was also charged with conspiracy to export defense articles and smuggle goods from the **United States** and money laundering. According to the prosecution, Kuok negotiated with undercover agents to obtain PRC-148 radios, a multiband transceiver used by U.S. Special Forces, and the key required to operate the cryptographic functions on a KG-175 TACLANE encryptor, a sophisticated piece of electronic equipment used to encrypt classified communications on military networks.

In 2006, Kuok had approached a contact in the defense industry in search of software for a VDC-300 airborne data controller, a device that secures satellite communications from American military aircraft. The contact referred Kuok to an undercover agent in San Diego who began to negotiate with Kuok about a shopping list of military technology, which grew to 43 items, ranging from a GPS receiver with anti-spoofing defenses to the AN/CYZ-10 crypto key management device developed by the **National Security Agency (NSA)**. Despite frequently expressing fears that he might be dealing with someone working for the NSA, **Central Intelligence**

Agency, or Federal Bureau of Investigation, Kuok continued to negotiate and, in March 2008, paid \$8,000, channeled through Western Union, for two PRC-148 radios, shipping them to his address in **Macao**. Later, using a Yahoo e-mail address and different name, Kuok attempted to purchase the KG-175 TACLANE, but the company refused to ship the item but did allow an investigator to negotiate on its behalf.

Kuok, who had used the aliases of Edison Kuok, Yoko Chong, Yoko Kawasaki, and others, told investigators that he had been “acting at the direction of officials of the People’s Republic of China” and that “he and PRC officials had sought the items to figure out ways to listen to or monitor U.S. government and military communications.”

At his trial in San Diego in March 2010, Kuok’s attorney asserted that his client’s attempt to acquire restricted technology had been coerced by PRC officials, but after the defense failed to offer a witness in support of the claim, he was found guilty. *See also* AIRBORNE COLLECTION; NATIONAL SECURITY AGENCY (NSA); TECHNOLOGY ACQUISITION.

CHITRON ELECTRONICS. In May 2010, Chitron Electronics, a company based in Waltham, Massachusetts, and Shenzhen, China, was convicted of conspiring to evade export controls on sensitive equipment with military applications over a period of 10 years. The Shenzhen Chitron Electronics Company Limited, based in Shenzhen, had been formed and controlled by a Harvard-educated engineer, Wu Zhenzhou, and Wei Yufeng was the office manager in Waltham. Chitron was also found guilty of selling embargoed material, including phased-array radar and satellite communications systems to the China Electronics Technology Group Corporation, a firm responsible for the procurement, development, and manufacture of electronics for the Chinese military. The company failed to appear at trial and was fined \$1.9 million, but Wu Zhenzhou was sentenced in January 2011 to eight years’ imprisonment. A fourth defendant, **Li Bo**, alias Eric Lee, had already pleaded guilty to a charge of making false statements on shipping documents. *See also* INDUSTRIAL ESPIONAGE; TECHNOLOGY ACQUISITION; UNITED STATES OF AMERICA (USA).

CHUNG, GREG. A 73-year-old naturalized U.S. citizen, originally from China, Dongfan “Greg” Chung was a senior Boeing engineer arrested on 11

February 2008 and charged with economic espionage for the People's Republic of China (PRC). In July 2009, he was found guilty of taking 300,000 pages of sensitive documents that included information about the U.S. Space Shuttle and a booster rocket in which Boeing had invested \$50 million. "Mr. Chung has been an agent of the PRC for over 30 years," ruled the U.S. District Judge Cormac J. Carney.

Chung, who had worked on the Space Shuttle, had been compromised by the discovery of a letter addressed to him from Gu Weihao, a Chinese Ministry of Aviation Industry representative, found by the **Federal Bureau of Investigation (FBI)** in Chi Mak's Los Angeles apartment. Gu was related to Chi Mak's wife, Rebecca Liu-wa Chu, and used her husband as a conduit to exchange messages by hand with Chung, and the document was explicit, noting that "in the past I have asked you to collect some quality control information at your convenience" and also noting that Gu undertook to pay Chung for any expenses incurred "while collecting or purchasing information." This find led to a search on 11 September 2006 of Chung's home, where documents were recovered concerning the Space Shuttle phased-array radar, the Delta IV rocket, and the C-17 Globemaster III military transport aircraft. One letter, addressed to Professor Chen Lung Ku[AQ11] of the **Harbin Institute of Technology** referred to Chung having "sent via sea freight three sets of manuals dealing with flight stress analysis."

Various other documents suggested that Chung was an ideologically motivated spy who had been active for decades. One, mentioning the four reform goals announced in December 1978 by **Deng Xiaoping**, stated, "I don't know what I can do for the country. Having been a Chinese compatriot for over thirty years and being proud of the people's effort for the motherland, I am regretful for not contributing anything. . . . I would like to make an effort to contribute to the Four Modernizations of China." The reply to Chung, dated September 1979, acknowledged receipt of his package of information and observed, "We are moved by your patriotism." Another letter, dated February 1985, from Chen Qinan, the deputy director of the China National Aero Technology Import and Export Corporation's technical import department, provided a list of aeronautical topics for Chung to focus on, including metal fatigue, helicopter rotor blades, and aircraft propellers. This correspondence heralded Chung's sponsored return

to the PRC in June 1985 to give a series of lectures on aircraft design, the Space Shuttle's forward fuselage, stress factors, and heat resistant tiles.

Chung completed his unreported visit to the PRC and remained in contact with the Nanchang Aircraft Company that provided him with questionnaires identifying the topics of interest. One requested:

1. Please introduce in detail how to determine the safety life and damage tolerance for the life conceptual design and operating procedure of an aircraft or part thereof.
2. Should non-failure probability and confidence level be considered for the actual measurement of the flight load spectrum? U.S. military specification recommends using mainly average spectrum, what is the basis of this recommendation?
3. How does the United States perform flight measurement and compiling of the tail load spectrum? Please introduce in detail.
4. For aircraft life estimation by the aircraft companies in the United States, what are the few commonly used engineering approaches?
5. What are the differences in determining the aircraft life for large civil aircraft vs. military fighter planes?
6. Introduce procedures and implementation processes for aircraft maintenance and inspection outlines. Specific contents and frequency for inspections, monitoring technology for major parts under stress.
7. What is the purpose of adding a spacer in the design (such as Boeing 707 airplanes) for the butt joint on the wing?
8. How many types of loaded flights are used for the fatigue tests of smaller fighter planes? What are the percentages for the mobile loading and the non-symmetrical loading? When performing loading test, are the sequences of the loading random or are they derived manually?
9. What approaches are used in the United States to determine the helicopter's life? Is the safety-life, fail-safe, or damage tolerance approach being used to assure flight safety? What is the application?

At the end of December 1985, Chung had reported to "Chief Engineer Feng" that he had acquired Rockwell Aviation manuals for the F-100, X-15, and B-70, 24 Rockwell manuals relating to the B-1 bomber, and 27 manuals concerning the stress loads on Plexiglas canopies, and arrangements were

made for a diplomat at the consulate in San Francisco, Zhen Lan Zhao, to receive the material so it could be sent to Beijing in the Chinese diplomatic pouch.

Other incriminating documents found at Chung's home indicated that he had been in continuous contact with the Chinese since 1979 and had made numerous unreported visits to the PRC from 1985 onward. In a discussion concerning a plausible cover for these trips, if Chung was challenged, it had been suggested that Chung's wife might receive invitations to an art institute. In addition to these visits, there was also evidence that Gu had traveled to the **United States** to see Chung in 1986 and probably thereafter.

The judge convicted Chung of six counts of economic espionage, one count of acting as a foreign agent, one count of conspiracy, and one count of lying to a federal agent but acquitted him of obstruction of justice. Chung had opted for a nonjury trial that lasted three weeks and ended on 24 June. His defense lawyers argued that Chung was a "pack rat" who hoarded documents at his house but insisted he was not a spy, claiming he may have violated Boeing policy by bringing the papers home, but he had not broken any laws, and the U.S. government could not prove he had given any of the information to China. According to the prosecution, Chung had worked for Rockwell International until it was bought by Boeing in 1996 and had stayed with the Chicago-based company until he had been made redundant in 2002. However, after the *Columbia* Space Shuttle disaster in 2003, Chung had been rehired as a consultant and had been employed until he was fired when the FBI began its investigation in 2006. The prosecution alleged that Chung began to spy for the PRC in the late 1970s, a few years after he became a naturalized U.S. citizen and was hired by Rockwell. In November 2009, he was sentenced to 24 years' imprisonment. *See also* CHINA AEROSPACE CORPORATION (CAC); INDUSTRIAL ESPIONAGE; TECHNOLOGY ACQUISITION.

CIRCUS. The **Central Intelligence Agency (CIA)** codename for a series of operations conducted in **Tibet** from June 1957 in support of Khampa tribesmen from the east of the country who opposed the occupation by the People's Republic of China (PRC), CIRCUS began with eight Khampas who were exfiltrated from Tibet on a converted B-17 bomber flown from Clark Air Force Base in the Philippines, by experienced Polish pilots, to Kermitola, near Dacca, in East Pakistan. The team then underwent CIA guerrilla training at camps on Guam and Okinawa before being dropped

back into Tibet from Kermitola in Operation ST/BARNUM in October and November. In July the following year, the CIA began dropping weapons to the fighters, employing a C-118 transport from Guam. During CIRCUS, more than 200 guerrillas were flown to the **United States** to undergo training in the Rocky Mountains at Camp Hale, near Leadville in Colorado. Formerly a World War II winter warfare center, Camp Hale had accommodated the 10th Mountain Division before the CIA took over the site. Having undergone the guerrilla course, the volunteers returned either to Mustang, just inside Nepal, or to their homeland. CIRCUS was terminated in May 1965 when the last supply drop was completed and the 247,000 acres of Camp Hale were turned over the U.S. Department of Agriculture's Forest Service.

CIVIL AIR TRANSPORT (CAT). Founded after World War II by the leader of the famous Flying Tigers, General Claire L. Chennault, in partnership with another American, Whiting Willauer, CAT operated closely with **Chiang Kai-shek**'s Nationalist air force and, based in **Taiwan** from October 1949, acted as a proprietary company of the **Central Intelligence Agency (CIA)**, undertaking clandestine propaganda leaflet-drop missions and reconnaissance overflights of Hainan Island and the mainland.

Exploiting gaps in China's radar screen detected by electronic intelligence missions, flights were made by the 91st Strategic Reconnaissance Wing from Yokota in **Japan**, and in March 1952, CAT aircraft began to penetrate deep into Chinese airspace in daylight with a Boeing B-17 and a Douglas DC-4 Skymaster, delivering Nationalist agents and collecting imagery. More than 100 of these missions were flown by Douglas A-25s and Consolidated PB-47s and RB-69s, often U.S. Air Force aircraft repainted in CAT livery. In 1950, the CIA took over CAT entirely and, until the project was closed down in June 1976, flew missions along the border with Yunnan Province, communicating with agents and making parachute drops of matériel. *See also* TROPIC; U-2.

CLINE, RAY. The **Central Intelligence Agency (CIA)** station chief in Taipei between 1958 and 1962, Dr. Ray Cline was an influential figure in local politics, operating under U.S. Naval Auxiliary Communications Center, and would be promoted to be the CIA's deputy director of intelligence. Born in 1918 in Illinois and educated at Harvard on a

scholarship, Cline served in the **Office of Strategic Services** during World War II in China and joined the CIA in 1949. His foreign postings included London from 1951 to 1953 and Bonn from 1966 to 1969. Later, he headed the State Department's Bureau of Intelligence and Research.

As chief of the CIA's analytical staff on the Sino-Soviet bloc between 1953 and 1957, he accurately predicted the split between the People's Republic of China and the **Soviet Union**. His contribution during the Cuban Missile Crisis in October 1962 gave him almost legendary status within the CIA and ensured he remained an influential figure in Washington DC, long after his retirement to Georgetown University in 1973, when he continued to be a keen advocate for the Chinese Nationalists and headed the **Taiwan Committee** for a Free China. He died in March 1996, aged 77.

COLLECTIVE SECURITY TREATY ORGANIZATION (CSTO). Created by the Russian Federation to offer mutual security in Central Asia, with a membership of **Kazakhstan**, **Kyrgyzstan**, **Tajikistan**, and **Uzbekistan**, the CSTO excludes the People's Republic of China and is perceived by Beijing as a rival to the **Shanghai Cooperation Organization**.

COMBINED INTELLIGENCE FAR EAST (CIFE). The postwar successor of the **Far East Combined Bureau**, CIFE was Great Britain's principal signals intelligence organization in the region during the Cold War. Based in Singapore, CIFE provided an umbrella for all local British security and intelligence operations and played a key role in the campaign against the guerrillas known as "Chinese Terrorists" during the **Malayan Emergency**. Among the **Secret Intelligence Service** professionals to head CIFE were Dick Ellis, James Fulton, Ellis Morgan, and Maurice Oldfield.

COMINTERN. The Third Communist International, headed until 1926 by Grigori Zinoviev from its creation in March 1919 in Moscow, was active in China with representatives in Peking, **Shanghai**, and Harbin engaged in promoting a global Bolshevik Revolution. Zinoviev was replaced in July 1935 by Nikolai Bukharin, who would be succeeded by a Bulgarian Communist, Georgi Dimitrov. The Comintern's intelligence branch, the Foreign Liaison Department (OMS), ran a clandestine network in Shanghai headed by **Hilaire Noulens**, but he was arrested in June 1931 and replaced by a series of **illegals**, among them Earl Browder and **Max Steinberg**. The

OMS network operated parallel to a separate GRU ring headed by **Richard Sorge** and, among many other activities, sponsored the English-language fortnightly newspaper *Voice of China*, published by the Eastern Publishing Company, which was headed by Manny Granich, a leading member of the Communist Party of the United States of America (CPUSA). In New York, Granich's wife, Grace, had been Browder's secretary.

COMMISSION OF SCIENCE, TECHNOLOGY AND INDUSTRY FOR NATIONAL DEFENSE (COSTIND). The **People's Liberation Army (PLA)** COSTIND is the body responsible for the planning and development of new technology with military applications and for overseeing the modernization of the PLA. Since its establishment, COSTIND has sponsored the Beijing Institute of Systems Engineering, held a series of symposia to debate such subjects as **information warfare**, and enjoyed a close relationship with the **Ministry of Electronics Industries**. Headed originally by Zhang Aiping, COSTIND sets policy for China's extensive military industrial complex and selects priority projects, such as the development of advanced satellites, lasers, and remote sensors, for direct funding. COSTIND exercises considerable influence on the direction of China's high-tech industry and is perceived by Western intelligence analysts as the key organization in Beijing responsible for identifying areas for **industrial espionage**. *See also* PROJECT 863.

COX REPORT. A redacted version of the *Report of the Select Committee on U.S. National Security and Military/Commercial Concerns with the People's Republic of China*, known as the Cox Report (after the committee's chairman, Congressman Christopher Cox), was released in May 1999; although, the complete document remains classified. The report, which had a lasting impact on United States policy toward the People's Republic of China (PRC), reached five major conclusions:

1. The theft of nuclear and other technology by the PRC was not achieved in a vacuum and was the result of decades of hostile intelligence operations conducted by the **Ministry of State Security** against U.S. weapons facilities, such as the Lawrence Livermore National Laboratory and the Los Alamos National Laboratory.
2. The PRC had been successful in stealing the designs of the seven most advanced American thermonuclear weapons.

3. The theft of those secrets had enabled the People's Liberation Army to accelerate its own design, development, and testing of nuclear weapons, without the added burden of conducting its own research and development.
4. The PRC's next generation of nuclear weapons would benefit from stolen designs and would be much more effective.
5. The PRC would be able to deploy small nuclear warheads much sooner than the previously predicted date of 2002, and the stolen designs would enable China to integrate multiple independent reentry vehicle (MIRV) technology in its next generation of missiles.

Following circulation of the Cox Report, the Director of Central Intelligence George Tenet appointed Robert Walpole in February 2000 to complete a study of the PRC's nuclear espionage, a document that remains classified. *See also CHINESE NUCLEAR WEAPONS; INDUSTRIAL ESPIONAGE; TECHNOLOGY ACQUISITION.*

CULTURAL REVOLUTION. The Cultural Revolution, *Wuchan Jieji Wenhua Da Geming* (literally the Great Proletarian Cultural Great Revolution), was launched by **Mao Zedong** in 1966 and plunged the country into social, political, and economic turmoil that lasted a decade. By 1976, there was nationwide chaos, economic disaster, and little external intelligence activity conducted by the **Ministry of Public Security (MPS)**. The MPS's headquarters was attacked by the Red Guards (*Hong Wei Bing*), and the minister of security, Luo Qingchang, was thrown out of a window, breaking his legs. He was then paraded through the streets and subjected to humiliation while MPS files were seized as well as individual dossiers used to identify candidates for criticism and banishment into the *lao jiao* prison system.

Following the catastrophic Great Leap Forward, Mao's unchallenged power was contested, and although he resigned his political position as state chairman of China, he refused to admit to a mistake, insisting his plan had been “70 percent correct,” and retained the more important post of chairman of the **Chinese Communist Party (CCP)**. After an initial alliance with Liu Shaoqi, in an effort to discredit Peng Dehuai, who had earlier criticized Mao and threatened his powerbase, Mao turned on Liu in 1963 and asserted that the class struggle was an ongoing process and must be undertaken

“yearly, monthly, and daily.” This resulted in the “Four Cleans Movement,” with the goal of purifying politics, economics, ideas, and organization of “reactionaries,” a campaign directed at Liu. By 1966, the Cultural Revolution was underway, led by the Red Guards. Mao turned to his long-time associate **Kang Sheng**, the head of his security apparatus, to ensure that his ideological and security directives were carried out.

Kang played a key role in implementing the Cultural Revolution, as did Mao’s wife, Jiang Qing, who had been Kang’s lover. Jiang, together with Wang Hongwen, Yao Wenyuan, and Zhang Chunqiao, became known as the “Gang of Four” and began a campaign to renew the spirit of the Chinese revolution. They attacked the “Four Olds” of Chinese society (old customs, old culture, old habits, and old ideas), and the Red Guards destroyed fully two-thirds of China’s famous temples, shrines, and other such heritage sites. Established political leaders, including **Deng Xiaoping**, Liu Shaoqi, and Peng Dehuai, were attacked, sometimes physically, and Deng’s son Deng Pufang was thrown out of a second story window, leaving him permanently confined to a wheelchair.

Intelligence personnel were also attacked, and **Shen Jian**, a long-time associate of Kang’s, was subjected to criticism. Only leaders of the **People’s Liberation Army (PLA)** escaped such behavior, and some officials, such as Shen, were able to find positions for family members in the PLA to avoid the wrath of the Red Guards.

The fact that during the 10 years of the Cultural Revolution **Larry Wu-tai Chin** was not contacted by Chinese intelligence is an indication of the paralysis experienced by the MPS. However, by 1967, the Red Guards came to be considered a liability, and they encountered resistance in some factories and even in rural areas, where they had never been as disruptive as in the major cities. Eventually, the PLA was ordered to restore order, and the following year, it put down the Red Guard movement, often violently. Mass executions and even cannibalism of students occurred in Guangxi Province, and there were similar incidents in Sichuan, Anhui, Hunan, Fujian, and Hubei provinces. Finally, Mao himself met with Red Guard leaders and asked them to gently end the movement.

Lin Biao, as head of the PLA, gained considerable power and, in 1969, was named as Mao’s designated heir, but after some semblance of order had been restored, Mao began to view Lin Biao, who had been prominent in establishing Mao’s personality cult throughout China, as a threat and turned

on him. Lin was killed in a plane crash while ostensibly trying to flee to the **Soviet Union** in 1971, and it has been claimed that this was Kang Sheng's handiwork.

The Cultural Revolution persisted beyond the death of Kang Sheng in 1975 but came to an end the following year when Mao and **Zhou Enlai** died. The Gang of Four was prosecuted, and Deng Xiaoping regained power to undo much of the harm inflicted by Mao over the previous decade. Contact with Larry Wu-tai Chin, for instance, was reestablished by the MPS, enabling him to resume his espionage. Modern Chinese intelligence personnel rarely discuss the Cultural Revolution, and usually the topic is only raised within a CCP context.

CYBER ESPIONAGE. Since the development of the Internet and the impressive electronic warfare techniques employed by the **United States** during the invasion of Iraq in March 2003, the People's Republic of China (PRC) has adopted a policy of developing and occasionally deploying aggressive strategies intended to close down an adversary's communications network or plunder its databases for information. One attack, codenamed NIGHT DRAGON, appeared to concentrate on the energy sector. According to the U.S.-China Economic and Security Review Commission report released in September 2009, attacks on U.S. Department of Defense computers from sources traced to mainland China rose from 43,880 in 2007 to 54,640 in 2008. As well as launching offensives against U.S. government targets, the PRC has been the source of denial of service and other sabotage against the country's perceived opponents, such as **Tibetan** activists, the pro-democracy movement, **Uighur** separatists, and members of **Falun Gong**.

In recent years, evidence has emerged of PRC students abroad engaging in cyber espionage, with a group at Leuven's Catholic University accused of having attempted to sabotage the communications systems of the Belgian Parliament, the European Union's headquarters in Brussels, and the headquarters of the North Atlantic Treaty Organization (NATO). Other attacks have been traced to the PRC, including a month-long assault on the **Australian** Parliament's computer system in March 2011. According to the U.S. State Department internal memoranda, the PRC sponsored Lin Yong, a notorious hacker known as "Lion," who founded the Hacker Union of China, a group of ostensibly independent hackers who sought to revenge the accidental bombing of the Chinese embassy in Belgrade in May 1999 by

attacking U.S. government-related websites. Also mentioned is Xfocus, the hackers who released the Blaster worm in August 2003, infecting computers using Windows XP and Windows 2000 operating systems worldwide. In June 2009, a classified State Department circular claimed:

There is a strong possibility the PRC is harvesting the talents of its private sector in order to bolster offensive and defensive computer network operations capabilities. . . . Potential linkages of China's top companies with the PRC illustrate the government's use of its private sector in support of information warfare objectives.

The State Department identified Topsec, the PRC's largest computer security company, and Venustech, another leading Chinese security firm, as part of the China Information Technology Security Center (CITSC), the entity that was Microsoft's partner in distributing the Windows operating system in the country. However, during 2002 and 2003, Topsec employed Lion, and the company's founder, He Weidong, publicly acknowledged that the PRC government had invested in his company, supplying half of Topsec's start-up capital and awarding it research and development contracts.

In assessing what was termed the "cyber threat," in confidential cables in 2008, the State Department claimed that, since 2002, cyber intruders involved in the BYZANTINE CANDOR attack, which originated in the PRC, exploited the vulnerabilities of the Windows system to steal login data and access to hundreds of U.S. government and sensitive defense contractor systems:

In the United States, the majority of the systems BYZANTINE CANDOR actors have targeted belong to the U.S. Army, but targets also include other Department of Defense services as well as Department of State, Department of Energy, additional U.S. government entities, and commercial systems and networks.

In another cable headed "Diplomatic Security Daily," a State Department memo described how officials involved in talks with the PRC at the 2009 United Nations Climate Change Conference in Copenhagen were subject to a cyber attack containing the POISON IVY remote access tool intended to give hackers almost complete control over the victim's system.

The socially engineered message had the subject line "China and Climate Change" and was spoofed to appear as if it were from a legitimate international economics columnist at the *National Journal*. In addition, the body of the e-mail contained comments designed to appeal to the recipients as it was specifically aligned with their job function. . . . State Department employees dealing with sensitive matters are often targets of social-engineering schemes

conducted by actors seeking to harvest sensitive information. As negotiations on . . . climate change continue, it is probable intrusion attempts such as this will persist.

An intrusion in March 2011 into the SecurID password authentication system marketed by EMC, the security component of the defense contractor RSA, compromised some of the 25 million key-fobs that generate “one-time” access codes and led to the cloning of tokens distributed to Lockheed Martin employees. The attack was found to have originated in an ostensibly harmless e-mail entitled “2011 Recruitment Plan” but actually enabled the downloading of POISON IVY, a notorious, Chinese-built remote access tool. In consequence, the U.S. **National Security Agency** initiated Operation STARLIGHT, a group of independent consultants, to recommend countermeasures. Then, in October 2011, Representative Mike Rogers, the chairman of the House Intelligence Committee, protested that cyber attacks from the PRC had reached an “intolerable level” and called on the administration to “confront Beijing,” saying, “I don’t believe that there is a precedent in history for such a massive and sustained intelligence effort by a government to blatantly steal commercial data and intellectual property.”

A month later, in November 2011, the U.S. National Counterintelligence Executive (NCIX) released a report that identifies the PRC and Russia as being the principal perpetrators of cyber-espionage and quotes the National Science Foundation as estimating annual American losses at \$398 billion, mainly in the field of research spending, asserting that China and Russia view themselves as strategic competitors of the United States and are the most aggressive collectors of U.S. economic information and technology.

Relying on data assembled over the past two years from 13 other U.S. agencies, including the CIA and the FBI, the NCIX report notes that corporations, universities, and government departments were being deliberately targeted by hackers to “gather enormous quantities of information with little risk” while acknowledging the difficulty in tracing the precise whereabouts of the culprits who routinely employed dispersed routers in third countries. Priority targets appeared to be pharmaceutical companies, military equipment manufacturers, and any organization working on advanced materials; although, the threat had not been fully recognized, noting, “Only 5 percent of corporate chief financial officers are involved in network security matters, and only 13 percent of companies have a cross-functional cyber risk team that bridges the technical, financial and other elements of a company,” according to a 2010 study.

The computer networks of a broad array of U.S. government agencies, private companies, universities and other institutions—all holding large volumes of sensitive economic information—were targeted by cyberespionage.

However, the NCIX concludes, “Many companies are unaware when their sensitive data is pilfered, and those that find out are often reluctant to report the loss, fearing potential damage to their reputation with investors, customers, and employees.” *See also* AVOCADO; GHOSTNET; INFORMATION WARFARE; INFORMATION WARFARE MILITIA; TITAN RAIN.

D

DA-CHUAN ZHENG. In 1984, Da-Chuan Zheng, Kuang-shin Lin, Jing-li Zhang, David Tsai, and Allen Yeung were convicted of conspiring to illegally export restricted military equipment to the People's Republic of China. All had been identified during a sting operation conducted by federal agents and U.S. Customs as seeking to purchase various items, such as radar jamming equipment, including English Electric Valve Company traveling wave-tube amplifier chains and Watkins-Johnson Inc. traveling wave-tube amplifiers. Described as a businessman from **Hong Kong**, Da-Chuan Zheng acknowledged under interrogation that in recent years he had spent some \$25 million on similar purchases. An attempt by the defendants to appeal a definition in their indictments as too vague was dismissed in July 1985. *See also* TECHNOLOGY ACQUISITION; UNITED STATES OF AMERICA (USA).

DANILOV, VALENTIN. A respected Russian physicist and head of the Thermo-Dynamics Center at Krasnoyarsk State Technical University, Valentin Danilov was arrested in 2004 and sentenced to 14 years' imprisonment, having been found guilty of espionage on behalf of the People's Republic of China.

DEBENTURE. The British **Secret Intelligence Service (SIS)** codename for a "black radio" station, DEBENTURE was established in Singapore in 1954 and was intended to improve the flow of middle class Chinese refugees across the frontier to **Hong Kong**. As the screening of refugees was SIS's principal source of intelligence, DEBENTURE was intended to encourage more people to make the hazardous journey over the border. Originally intended to be sited in Hong Kong, political objections meant the transmitter had to be located in a secure military compound elsewhere.

DEFENSE INTELLIGENCE AGENCY (DIA). One of several **United States** intelligence agencies collecting information about China, the DIA is headquartered at Bolling Air Force Base, outside Washington DC, and trains defense attachés prior to their deployment in Beijing. Defense attaché reporting is collated by analysts who circulate their own assessments or contribute to National Intelligence Estimates compiled under the authority

of the director of the **Central Intelligence Agency**. The DIA concentrates on **Chinese naval strength** and the **Chinese nuclear weapons** program and routinely issues threat assessments within a classified environment. An assessment, dated April 1984, suggests that the current Chinese stockpile of nuclear weapons amounted to 150–160 warheads but acknowledged that this figure was based on estimates derived from indirect sources, mainly from counting the delivery systems and studying test yields. The DIA had been unable to locate any airfield storage sites and had concluded that the limited size of the Chinese nuclear arsenal was a reflection of Beijing's needs rather than any shortage of nuclear matériel.

DIA collection efforts in Beijing have been curtailed by ubiquitous hostile surveillance that has amounted to harassment, and in 1995, two DIA officers were expelled from the country. *See also* HOU DESHENG; MONTAPERTO, RONALD N.

DENG. In February 2010, a 41-year-old consular officer employed by **South Korea**'s consulate in **Shanghai** resigned following an investigation conducted by the Ministry of Justice into the activities of his Chinese wife, an attractive woman identified only as Deng. Three years earlier, he had reported his discovery at home of compromising photographs of her with two of his colleagues, together with a computer file containing a collection of confidential consular documents, including details of visa applications and a list of cell phone numbers belonging to 200 members of President Lee Myung-bak's reelection campaign. According to her husband, Deng had been a civil servant until five years earlier, and the suspicion was that she had passed information to the **Ministry of State Security**. *See also* HONEYTRAP.

DENG XIAOPING. The **Ministry of State Security (MSS)**, *Guojia Anquanbu*, an intelligence agency intended as an outward-looking intelligence service, was created by Communist politician Deng Xiaoping in 1983. Deng's organization replaced the **Ministry of Public Security**, *Gong'anbu*, as the PRC's principal security apparatus. This was a major development as hitherto the country has been isolated, with few diplomatic missions overseas, and almost wholly preoccupied with issues of internal security. The creation of the MSS, charged with conducting intelligence collection operations overseas, was a significant turning point for the country.

Born in Sichuan Province in 1904, Deng Xiaoping came from a farming background but studied in France, where he was influenced by Marxism. He joined the **Chinese Communist Party (CCP)** in China in 1923 and worked his way up through the party ranks and, in 1934, participated in the 6,000-mile Long March with **Mao Zedong**. He was instrumental in the People's Republic of China's (PRC) economic reconstruction after the disastrous Great Leap Forward started by Mao but was twice purged during the **Cultural Revolution**, after which he embraced the "Four Modernizations," originally announced by Zhou Enlai in 1973, as the goals for the PRC, advocating reform in industry, science and technology, agriculture, and the military.

Following Mao's death in September 1976, Deng outmaneuvered Mao's chosen successor, Hua Guofeng, and although never becoming premier or even CCP chairman, became the PRC's de facto leader in 1978.

Deng had five children by his third wife. Their son Deng Pufang was thrown out a window by Red Guards during the Cultural Revolution and has been confined to a wheelchair for the remainder of his life. A daughter, Deng Rong, was assigned to the PRC's embassy in Washington DC after normalization but adopted the alias "Xiao Rong." She was accompanied by her husband, a military attaché, He Ping, a son of Marshal He Long, a veteran of the **People's Liberation Army** and the Long March. Deng died in February 1997. *See also* PROJECT 863.

DING, JIAN WEI. On 28 October 2008, a federal grand jury in Minnesota indicted Jian Wei Ding, aged 50 of Singapore; Ping Cheng, aged 46 of Manhasset, New York; and Kok Tong Lim, aged 36, also of Singapore, for conspiring to export Toray carbon-fiber material, which had space and uranium enrichment applications, to the People's Republic of China (PRC). Between February and March 2009, all three pleaded to a single count of conspiracy to violate Export Administration regulations.

Ding controlled several Singaporean import-export companies; one of which acquired high-technology items for the China Academy of Space Technology, a research institute working on Chinese spacecraft programs. According to the prosecution, Ding's role was to manage the companies, to maintain a relationship with the Chinese end-users of his Toray purchases, and to provide the funding. Cheng's role was to act as the agent in the **United States** for Ding's companies, while Lim made contact with potential suppliers. The trio negotiated with a company in Minnesota that purported

to be a supplier of aerospace commodities, and Ding admitted that he sent Cheng there twice to inspect Toray material. He also acknowledged that he instructed Cheng to export the Toray material to Singapore and **Hong Kong** without the required export license.

Cheng admitted that he had traveled from New York to Minnesota to inspect 104 kilograms of Toray material prior to its final acceptance by Ding's companies and had instructed his freight forwarder to ship his purchase to New York for storage before it could be shipped illegally. Finally, Lim confirmed that he had urged the Minnesota company to place an order of Toray material on behalf of Ding's companies. The three face charges with a maximum penalty of 20 years' imprisonment and a maximum fine of \$1 million. See also TECHNOLOGY ACQUISITION.

DIRECTION GÉNÉRALE DE LA SÉCURITÉ EXTÉRIEURE (DGSE). The DGSE is one of the few Western intelligence agencies to operate a declared station in Beijing, and its director, General René Imbot, posted an officer to the French embassy in 1986. Later, Imbot's own son Thierry was sent to Beijing in a liaison role, but he died in mysterious circumstances following the sale of French frigates to **Taiwan**. In 2000, the Sino-French relationship cooled when the DGSE representative, known only as Henri, a well-regarded graduate of the Institut National des Langues et Civilisations Orientales with a degree in Mandarin, defected and was resettled by the **Ministry of State Security**. Described as taciturn, it was suggested Henri had been suffering from depression after his wife had declined to accompany him to China, and he had begun an affair with his interpreter. *See also FRANCE; HONEYTRAP.*

DIXIE MISSION. In July 1944, the U.S. Army Observation Group, known as the Dixie Mission, attempted to establish a relationship with the **Chinese Communist Party** and the **People's Liberation Army (PLA)**. The mission consisted of 18 experienced China hands led by Colonel David D. Barrett and was to provide military analyses, while **John S. Service** from the Department of State was to provide political analysis. Hitherto, local intelligence collection had been in the hands of the U.S. naval attaché in Chungking, Commander James McHugh, who would later be replaced by Commodore Milton Miles.

Initially, President Franklin D. Roosevelt's administration had sought **Chiang Kai-shek's** permission to send the delegation into what was a

Communist controlled area of Yan'an, but Chiang had refused. However, after Vice President Henry Wallace visited Chiang in Chungking in June 1944 and agreed to remove General Joseph "Vinegar Joe" Stilwell, an ardent critic of Chiang, permission was granted. Ironically, Stilwell had strongly supported the idea of the Dixie Mission, which had been advocated by a Foreign Service officer, John Paton Davies, Jr., to President Roosevelt. Another concession was for Chiang to have a direct link to Roosevelt through General Patrick Hurley, a Texas oilman with no Far East experience, who was chosen for the task. Hurley likened the differences between Chiang's **Kuomintang (KMT)** and **Mao Zedong**'s Communists as akin to the differences between Democrats and Republicans in the United States.

In July 1945, Hurley visited **Tai Li**, the KMT's spymaster and head of the **Sino-American Cooperative Organization (SACO)** in Chungking. Tai and SACO's deputy director, Admiral Milton "Mary" Miles, who was assigned to the **Office of Strategic Services**, persuaded Hurley that the Dixie Mission was more or less a conspiracy by State Department personnel to favor Mao's Communists and that the mission intended to use U.S. Army paratroopers to lead Communist guerrillas in combat. That, argued Hurley, was tantamount to de facto recognition of the Communists and their declared objective of destroying the KMT.

Meanwhile, John S. Service was reporting to Washington DC that Mao's Communists were more akin to European socialists than Soviet Communists and that an agrarian capitalism would emerge without the violence associated with the Bolshevik Revolution. Furthermore, Barrett had evaluated the PLA by observing exercises and attending officer training schools and commented on the PLA's excellent performance in combat, even though it had been over four years since the PLA had been deployed in large numbers of troops against the Japanese, and on that occasion, the conflict had been a setback for the PLA. Nevertheless, the PLA maintained the illusion that they, in contrast to the KMT, were active and effective fighters. In reality, the Communists simply had allowed Dixie Mission personnel to see only what they wanted them to see, which usually consisted of specially staged events. Nor did anyone ask to visit **Kang Sheng**, though he was active behind the scenes in denying access to any aspect of his intelligence apparatus.

In March 1947, the last members of the Dixie Mission left China but were caught up in political controversy. Barrett was denied promotion to general, and both Davies and Service were drummed out of the State Department. However, after the normalization of relations with China, Service returned to China, where he was warmly received by China's elite, including Mao Zedong. *See also* UNITED STATES OF AMERICA (USA).

DU SHASHAN. Hired by General Motors (GM) in Detroit in 2000, 41-year-old Du Shashan obtained a transfer to a hybrid technology division three years later and began copying proprietary documents. In 2005, five days after she had been offered severance, she copied thousands more documents and set up a company, Millennium Technology International, to trade with Cherry Automobile, a GM competitor in mainland China. On 23 July 2010, Du Shashan and her husband, Qin Yu, aged 49, who are both U.S. citizens, were indicted by a federal grand jury in Michigan on conspiracy and fraud charges, having been charged in 2006 with destroying documents sought by investigators after they had been observed near a Dumpster from which the **Federal Bureau of Investigation** later recovered shredded documents. According to GM, the value of the stolen information was estimated at \$40 million. *See also* INDUSTRIAL ESPIONAGE; TECHNOLOGY ACQUISITION.

E

EAGLE CLAW. The **Federal Bureau of Investigation** used the codename EAGLE CLAW for the investigation of **Larry Wu-tai Chin**.

EAST TIMOR. In December 2007, East Timor, having already received a pair of elderly *Shanghai*-class patrol boats, received an offer from a defense firm in the People’s Republic of China to construct and manage a radar station to monitor maritime traffic in the Wetar Strait, a strategically important narrows between East Timor and Indonesia’s island of Pulau Wetar. Although the East Timorese government in Dili was keen to identify illegal fishing in the country’s territorial waters, there was a suspicion that the gift, manned by Chinese technicians, would have a covert intelligence-collection function to watch movements in a choke point used by nuclear submarines and other vessels to transit the Pacific and Indian Oceans. Having consulted **Australia**, the **United States**, and the Philippines, the offer was declined.

EIGHTH BUREAU. The Eighth Bureau of the **Ministry of State Security (MSS)** operated as the **China Institutes of Contemporary International Relations** and later became responsible for counterespionage operations against external threats. The **Ninth Bureau** monitors all organizations and individuals deemed to be anti-China and against the **Chinese Communist Party** and runs investigations. It shares this responsibility with another MSS department, which concentrates on domestic counterespionage and takes on investigations into, for example, foreign adherents of **Falun Gong**, the pro-democracy movement, and Christianity who campaign overseas. Reportedly, in a recent success, the Eighth Bureau identified a **People’s Liberation Army** general who had been spying for **Taiwan**.

ELEVENTH BUREAU. The Eleventh Bureau of the **Ministry of State Security (MSS)** acquired responsibility for running the **China Institutes of Contemporary International Relations** when the **Eighth Bureau** took over counterespionage. The Eleventh Bureau fulfills the role of the MSS’s analytic branch and compiles reports for the Central Committee and the party leadership drawn from open sources, academic research, and secret intelligence from the **Fifth Bureau**. Although theoretically a secret

organization, the Eleventh Bureau is becoming more open and draws on a network of similar facilities across the country. It is also more reliant on open source reporting, conducting what might in any other society be regarded as legitimate journalistic research; although, their actual topics and priorities are considered classified. As pressure grows from the **Chinese Communist Party** leadership for information relating to international affairs, the status of the Eleventh Bureau has become elevated. Because of the expertise developed within the Eleventh Bureau, its personnel are often transferred to other key positions within the MSS.

ENGELMANN, LARRY. An American academic from Johns Hopkins University studying in Nanjing at the Center of Chinese and American Studies, Larry Engelmann developed a relationship in 1988 with Xu Meihong, a military intelligence officer assigned by the **Ministry of State Security (MSS)** to monitor his activities and determine whether he was an authentic scholar or a spy. Having encouraged the liaison, the MSS began to suspect from his intercepted letters mailed home to the **United States** that Engelmann had succeeded in turning the tables on Xu and had recruited her. She was arrested, dismissed from the **People's Liberation Army**, and returned to her village. Years later, she would be reunited with Engelmann, and after they married, they wrote an account of their experiences, *Daughter of China*. See also UNITED STATES OF AMERICA (USA).

ETHEREAL THRONE. The **Federal Bureau of Investigation (FBI)** used the codename ETHEREAL THRONE for Jeffrey V. Wang, a 37-year-old engineer born in Honolulu, employed by the radar division of Raytheon Space and Airborne Systems, the defense contractor designing components for the F-15 Eagle and F-18 fighters and the B-2 bomber. He was identified as a **Ministry of State Security (MSS)** source by an FBI informant who claimed to his handler, David LeSueur, to have good contacts at the People's Republic of China (PRC) consulate in San Francisco and had already named Katrina Leung, codenamed **PARLOR MAID**, as an MSS spy. A lengthy investigation of Wang was conducted and included participation by one of his friends, Denise Woo, who was an FBI special agent. The operation eventually was terminated when it was realized that the informant held a family grudge against Wang, but in August 2004, Woo was indicted on leaking sensitive FBI information to him. She was later dismissed and fined \$1,000.

EVANS, RICHARD M. Born in April 1928 and educated at Magdalen College, Oxford, Evans joined the **Secret Intelligence Service (SIS)** in 1952 and was posted to the Beijing station in 1956 before returning to London the following year. He was back in Beijing in 1962 for two years and spent four years in Berne, from 1964, before transferring to the Foreign Office. He was then appointed head of the Far Eastern Department and ended his diplomatic career as ambassador in Beijing from 1984 to 1988. In 1983, he published an unclassified version of a personality profile he had drafted for SIS, *Deng Xiaoping: The Making of Modern China*. After his retirement, and having received a knighthood, he worked as a research fellow at Wolfson College, Oxford. *See also GREAT BRITAIN.*

EWERT, ARTHUR. Arrested in Rio de Janeiro in December 1935, Arthur Ewert was a seasoned revolutionary with a German background who had emigrated from East Prussia before World War I to Detroit, where he had found work in a leather factory and become an active trade unionist. In 1917, he and Elise Saborowski had moved to Toronto, only to be arrested by the Royal Canadian Mounted Police and deported for attempting to organize a branch of the banned Communist Party. Undeterred, Ewert had worked for the Communist Party of the United States of America (CPUSA) and was invited to Moscow by the **Comintern**. He attended the Fifth Congress of the CPUSA in New York in August 1927 as Josef Stalin's personal representative and, upon his return to Moscow, was elected to the Executive Committee of the Third International and also to the Reichstag as a Kommunistische Partei Deutschlands deputy.

In 1931, Ewert was sent on a mission to Yuzhamtorg in Montevideo, Uruguay, the Comintern's Latin American cover organization, and when this had been completed successfully, he was posted with Elise to **Shanghai**, the Comintern's Far East headquarters, carrying false American passports in the names of Harry Berger and Machla Lenczycki. They remained in China until July 1934, when they were recalled to Moscow and prepared for a new assignment, to accompany Luís Prestes to Brazil and participate in the military coup that would establish a Soviet-style government.

Although sentenced to 10 years' imprisonment, Ewert was amnestied in May 1945 but, upon his return to **Germany** in 1947, was found to have been driven insane by the torture he had endured in captivity. He died in

1959. His wife Elise, deported to Germany with a fellow conspirator, Olga Benário Prestes in 1938, was last seen alive at Lichtenburg in 1941.

F

FALUN GONG. Created in 1992 by Li Hongzhi, the Falun Gong movement is a pacifist, Buddhist-based religion that adopted Taoist gymnastic exercise. It gained political notoriety when, on the 10th anniversary of the Tiananmen Square massacre, the organization unexpectedly held a huge silent vigil in the center of Beijing before quietly dispersing.

Banned in April 1999, the movement was publicly condemned as an illegal sect and became a target for the **Ministry of State Security (MSS)**. Falun Gong's worldwide network of co-religionists sustained cyber attacks that eventually were traced to the Information Service Center of Xin'an in Beijing, reportedly an MSS front organization. Information about the Central Committee's response to Falun Gong has been revealed by defectors, among them **Chen Yonglin**, who in July 2005, disclosed the existence of **Central Bureau 610**, and **Zhang Jiyan**, the wife of an auditor based, until March 2007, at the embassy in Ottawa. *See also* AVOCADO; CYBER ESPIONAGE; INFORMATION WARFARE; INFORMATION WARFARE MILITIA; SHANGHAI COOPERATION ORGANIZATION (SCO); TITAN RAIN.

FAR EAST COMBINED BUREAU (FECB). The cover name of the British cryptographic organization in prewar **Hong Kong**, the FECB began operations on Stonecutter's Island in 1932 under the leadership of Royal Navy Captain Arthur Shaw but was evacuated in 1941 to Kranji, Singapore, and then to Kandy. Shaw was succeeded by Captain John Waller and then by Captain F. J. Wylie. After the Japanese surrender in 1945, the FECB was replaced by **Combined Intelligence Far East**, located in Singapore. *See also* GREAT BRITAIN; SECRET INTELLIGENCE SERVICE (SIS).

FARRELL, FRANK. Formerly a newspaper correspondent, Major Frank Farrell of the U.S. Marines operated as an intelligence officer in southern China during World War II and was successful in neutralizing Germans in Canton and **Shanghai** after the Nazi surrender in May 1945, when many were inclined to continue supporting local Japanese networks.

FEDERAL BUREAU OF INVESTIGATION (FBI). The FBI is unique among the world's law enforcement and security agencies as it serves as both the federal police, with responsibility for pursuing more than 200 categories of federal crimes, as well as the United States' principal internal security agency. Because of extraterritorial jurisdiction, the FBI is also required increasingly to conduct investigations abroad, mainly terrorist-related, and posts a large number of personnel overseas.

Established in 1935 from the former Bureau of Investigation, the FBI has grown into an organization with a budget of well over \$6 billion; it employs a staff of more than 30,000, including over 13,000 special agents who carry weapons and have powers of arrest. Based at the J. Edgar Hoover Building on Pennsylvania Avenue in Washington DC, the FBI runs 56 field offices located in major cities throughout the **United States** with over 400 resident agencies located in smaller locales and over 50 international offices headed by legal attachés, who enjoy diplomatic status in the host countries to which they are accredited. In September 2002, after years of negotiations by a State Department team led by **Donald Keyser**, the People's Republic of China (PRC) allowed the FBI to open a provisional Legal Attaché's Office in Beijing for a period of two years. Special Agent Anthony Lau, who had been the legat at the **United States Consulate General in Hong Kong**, was transferred to Beijing. Upon his retirement in 2003, he was replaced temporarily by Special Agent William Liu, but in April 2004, FBI Director Robert Mueller visited Beijing, and the PRC agreed to give the Legal Attaché's Office full diplomatic status, so Liu became the first fully accredited legat in Beijing, with responsibility for the PRC and Mongolia. Liu was later succeeded by Special Agent Steven Hendershot.

The FBI is the principal agency responsible for counterintelligence operations in the United States and, since the establishment of formal diplomatic relations with the PRC in 1973, has assigned a squad of special agents and support personnel to concentrate on the threat posed by Chinese-sponsored espionage. Previously, the FBI's focus has been limited to studying links between Maoist student groups, such as the **Revolutionary Union**, and any foreign intelligence sponsors.

Concentrated on the Washington Field Office, the China Squad (the exact size of which remains classified) conducts classified physical and technical surveillance operations on hostile intelligence personnel based at the PRC's embassy and liaises closely with its counterparts in the **Central**

Intelligence Agency (CIA), the National Security Agency (NSA), the State Department, various military counterintelligence offices, Homeland Security, Immigration and Customs Enforcement, and other U.S. agencies with an interest in the PRC. In addition, the FBI remains the principal counterintelligence contact for foreign liaison officers posted in Washington.

The FBI's Chinese counterintelligence program is concentrated at headquarters in two sections of the National Security Division (NSD), formerly the Intelligence Division, designated NSD-2, with analytical work conducted by NSD-3. Meanwhile, the Washington Field Office has a large squad devoted to Chinese counterintelligence and is the focal point of the FBI's efforts at monitoring the PRC's diplomatic and military establishment in Washington. Similar squads are located in New York, San Francisco, Los Angeles, Houston, and Chicago, where there are large ethnic Chinese communities as well as international organizations, such as the United Nations. Further, smaller numbers of FBI personnel are scattered around FBI field offices to monitor PRC students and visiting delegations.

The NSD is headed by an assistant director and, since 1973, has been led by Edward J. O'Malley, Jim Geer, W. Douglas Gow, Wayne Gilbert, Tom DuHadway, John Lewis, Neil J. Gallagher, and Sheila Horan; although, none was a China specialist, and some had little counterintelligence experience. NSD-2 was also headed by a succession of section chiefs with little exposure to China matters, particularly during the Cold War, when Soviet Bloc countries were regarded as a greater priority. Indeed, one assistant director minimized the threat posed by the PRC, disparaged the China program, and advocated its closure. Bruce Carlson was the first and only NSD assistant director to be truly a China expert, fluent in the language with a real understanding of China's history and culture.

The FBI's essential expertise in China matters rested in select field offices, especially at the Washington Field Office, New York, and San Francisco, where a small but dedicated cadre of FBI special agents developed considerable skill. At headquarters, the Chinese counterintelligence program competed for resources and attention, with units concerning the Soviet Bloc countries and Cuba, and in the field offices, with units pursuing criminal investigations. While there were those with considerable backgrounds who headed the China Unit, such as T. Van Magers, there were also those, like Ken Geide, who ran the unit with little operational

experience concerning the PRC. This was largely a result of the FBI's China program having been relatively small during the formative years, immediately after the normalization of diplomatic relations, and the absence of any established career path within the organization for personnel dealing with counterintelligence in general and those assigned to Chinese counterintelligence in particular. Any ambitious FBI special agent assigned to China counterintelligence was obliged to transfer to other sections to achieve promotion to the FBI's coveted Senior Executive Service.

The FBI's counterintelligence priorities are determined by the director of national intelligence, but the organization routinely mounts operations to inhibit Chinese espionage, and occasionally these operations become public, usually following the expulsion of a diplomat or the arrest of suspects. In just such an example, in December 1987, the FBI entrapped the PRC's assistant military attaché, **Hou Desheng**, and another Chinese diplomat, Zang Weichu, as they attempted to buy what they believed were classified NSA documents from an informant in a Chinese restaurant in downtown Washington.

The FBI acknowledges a significant increase in cases involving what might be categorized as state-sponsored **industrial espionage**, noting that, since March 2006, it has participated in obtaining evidence for bringing criminal prosecutions against 44 individual suspects in 26 separate investigations. *See also AMERASIA; ANUBIS; BOEING 767-300ER; CAMPCON; CHANG FEN; CHI MAK; CHIN, LARRY WU-TAI; CHINCOM; CHUNG, GREG; ETHEREAL THRONE; GOWADIA, NOSHIR S.; HOU DESHENG; KAO YEN MEN; LEE, DAVID YEN; LEE, DUNCAN C.; MIN GWO BAO; MINISTRY OF STATE SECURITY (MSS); PARLOR MAID; PRICE, MILDRED; SHAN YANMING; SUCCOR DELIGHT; TECHNOLOGY ACQUISITION; TECHNOLOGY COUNTERFEITING.*

FIFTH ACADEMY. Created by the Ministry of National Defense in 1956, and headed by **Qian Xuesen**, the Fifth Academy became China's principal research establishment concentrating on missile and satellite development.

FIFTH BUREAU. The Fifth Bureau of the **Ministry of State Security (MSS)** is responsible for secret intelligence reporting and the assessment of intelligence before it is circulated to the **Eleventh Bureau** for distribution outside the MSS.

FIRMSPACE. In October 2008, three employees and two directors of a Singapore-based import-export business, FirmSpace, were indicted on charges of conspiring to export embargoed carbon-fiber technology to the PRC. The sensitive material, with applications in the space technology and nuclear fuel-enrichment fields, was ordered from a Minnesota manufacturer by **Jian Wei Ding** and Lim Kok Tong for delivery to an address in New York, where a third employee, Cheng Ping, was to store it before it was shipped overseas. According to the indictment, FirmSpace's directors were two Chinese nationals, Gao Xiang and Hou Xinlu. *See also CHINESE NUCLEAR WEAPONS; INDUSTRIAL ESPIONAGE; TECHNOLOGY ACQUISITION; UNITED STATES OF AMERICA (USA).*

FIRST BUREAU. A branch of the **Second Department of the People's Liberation Army General Staff**, the First Bureau is a geographic section concentrating on **Taiwan** and **Hong Kong**. It deployed personnel under commercial, journalistic, and academic cover and used the Bank of China, the China Resources Group, and the Everbright Group as vehicles for its operations.

FONDREN, JAMES W. In May 2009, a senior Department of Defense officer based at the Pentagon was arrested and charged with espionage on behalf of the People's Republic of China (PRC), apparently having been recruited under a "false flag" by a Taiwanese, **Tai Shen Kuo**. However, a month later, his indictment was changed to accuse him of having worked for Beijing for more than a decade. Aged 62, Lieutenant-Colonel Fondren held top secret clearances as deputy director of the Washington liaison office for U.S. Pacific Command and was charged with passing secrets to Kuo, whom he had first met at the Houma Country Club in Louisiana.

According to the indictment, Fondren wrote an e-mail in 1998, stating that Kuo was using opinion papers provided by Fondren on Taiwanese military issues to ingratiate himself with the Chinese government. The two men then, in 1999, traveled together to the coastal town of Zhuhai in the PRC to meet a government official, Lin Hong, to whom Fondren promised to obtain reports on missile defenses in **Taiwan**. He would later exchange more than 40 e-mails with the Chinese between 1999 and 2000. Between June 1998 and January 2000, Kuo paid nearly \$8,000 to Fondren's consultancy, Strategy Inc. After his official retirement, Fondren returned as a contractor to the Defense Department, and Kuo apparently claimed to be working for

Taiwan. Convicted in September 2009 on one count of passing classified information to an agent of a foreign government, on 22 January 2010, Fondren was sentenced to three years' imprisonment in a federal penitentiary in Pennsylvania. *See also* UNITED STATES OF AMERICA (USA).

FOREIGN LANGUAGE INSTITUTE (FLI). Known as the **People's Liberation Army**'s Institute 793, the Foreign Language Institute was absorbed into the Institute of Foreign Relations after the **Cultural Revolution** in 1976. Located at Luoyang and Nanjing, the FLI provides training for personnel prior to an assignment overseas.

FOURTH DEPARTMENT. The Fourth Department of the **People's Liberation Army's General Staff Department (GSD)** is the People's Republic of China's (PRC) electronic warfare organization, also known as the Electronic Countermeasures and Radar Department (*dianzi duikang yu leida bu*).

Established in 1990, the Fourth Department conducts electronic warfare, collects electronic intelligence, and defends vulnerable sites, such as the PLA command bunkers in the Xishan Western Hills of Beijing. Western analysts monitored PLA Navy electronic warfare units conducting a major joint exercise in March 1996 in the South China Sea.

The research facilities most closely associated with electronic intelligence (ELINT) and the development of radar jammers are the 29th Research Institute in Chengdu, Sichuan Province, and the 36th Research Institute in Hefei, with academic study and training conducted at the PLA Academy of Electronic Engineering, located in Hefei, Anhui Province.

The PRC's targets include the U.S. NAVSTAR Global Positioning System, airborne early warning platforms, and American military networks, such as the Joint Tactical Information Distribution System.

To improve the PRC's access to more sophisticated technology, the **Ministry of Electronics Industry (MEI)** contracted several Israeli companies, such as Elbit, Elisra, Tadiran, Elop, and Elta, which formed joint ventures with the Southwest Institute of Electronic Equipment (the Hebei-based MEI 54th Research Institute) and the Anhui-based East China Research Institute of Electronic Engineering (the MEI 36th Research Institute) under the generic title Project 63.

Much of the Fourth Department's ELINT research is undertaken by the Southwest Institute of Electronic Equipment (SWIEE) and the MEI 54th Research Institute. An ELINT satellite program, known as "technical experimental satellites" (*jishu shiyan weixing*), was developed by Project 701 of the **Shanghai** Bureau of Astronautics. The first Chinese ELINT satellite was launched from Jiuquan in July 1975 on the FB-1 rocket, which was followed by two more, in December 1975 and August 1976. Western intelligence analysts later learned that the Shanghai Academy of Spaceflight Technology, the successor of the Shanghai Bureau of Astronautics, took over the program.

The Fourth Department is also responsible for space-based photoreconnaissance, euphemistically referred to as remote sensing (*yaogan*) and the collection of imagery. The first experimental imagery system was launched in November 1975 and was followed by two more tests. By 2011, nine Yaogan satellites were operational. Then, in September 1987, an FSW-1 (*fanhuishi weixing*, or recoverable satellite) was put into orbit from the Jiuquan Space Launch Center and returned to earth with its film in Sichuan. Four FSW-1s were successfully launched between 1987 and 1992, but a year later, an FSW-1 mission failed for technical reasons.

The FSW-2 variant, loaded with 2,000 meters of film, boasted a resolution of at least 10 meters, and the first, the *Jianbing-1B*, was launched in August 1992, with further insertions in 1994 and 1996, each lasting 15 or 16 days before returning with the exposed film cassette. These so-called scientific surveys (*kexue shence*) had a duration of 15 or 16 days and continued on 20 October 1996 but were followed by several different electro-optical remote sensing platforms, including the FSW-3 and a series designed by the China Academy of Space, operating in a 700-kilometer sun synchronous orbit with a five-meter resolution. Another series, the Ziyuan-1, or ZY-1, developed in a joint venture with Brazil, includes a data transmission capability from an altitude of 778 kilometers with a 20-meter resolution.

The PRC's intelligence satellites are managed by the National Remote Sensing Center (NRSC) via a ground station at Lizhong, which supplies an estimated 500 clients throughout the country. The NRSC's research branch is the Institute of Remote Sensing Application, which employs a staff of 300 in five basic research departments and three technology research departments, as well as the Center for Airborne Remote Sensing and the Computer Applications Center, both sponsored by **Project 863**.

The PRC's first indigenous synthetic aperture radar satellites (*hecheng kongjing leida weixing*), which can detect targets through clouds, became operational in 2004 following preliminary work at the **China Academy of Sciences** Institute of Electronics's 501st and 504th Research Institutes (Xian Institute of Space Radio Technology), the Shanghai Institute of Satellite Engineering, and MEI's 14th Research Institute and the Southwest Institute of Electronic Equipment. The program has been handicapped by the lack of ground stations for data relay satellites (*shuju zhongji weixing*); although, agreements were made with **France** in 1993 and Chile in 1994.

The Fourth Department's project, to develop a space tracking system, began with the launch of the first *Dong Fang Hong* communications satellite, which was developed by Luoyang Institute of Tracking, Telemetry, and Telecommunications and then controlled from the Xian Satellite Control Center in eastern Beijing. The national satellite control center was formerly located in Weinan, Shaanxi Province, but moved to Xian in December 1987.

Tracking stations supporting the national network are located at Weinan, Xiamen, Nanning, Kashgar, Changchun, and Minxi, with additional shipborne missile tracking platforms (*Yuanwang*), which can be deployed across the Pacific, Atlantic, and Indian oceans.

The PRC's plans to develop an over-the-horizon radar with a range of 250 kilometers, initiated in 1967, later stalled because of export restrictions on sensitive components but was able to resume in 1985 after steps had been taken to acquire the technology. More recent research on the advanced radar, undertaken at the **Harbin Institute of Technology**, has developed systems capable of tracking aircraft at a range of 1,000 kilometers as well as a high-frequency variant to monitor low-altitude and sea-skimming targets.

Another Fourth Department priority is phased-array radar, on which China began research in 1970 at the Ministry of Electronic Industry's 14th Institute in Nanjing. As an advanced radar system, essential for space tracking and providing missile early warning, an experimental 7010 apparatus was installed at an altitude of 1,600 meters near Xuanhua, manned by a Second Artillery unit. The 7010 was followed into production by the large 110 monopulse precision tracking surveillance radar, which became operational in 1977.

The Fourth Department is also developing and producing unmanned aerial vehicles (UAVs), known as *wuren jiashi feiji*, at Peking University's

Institute of Unmanned Flight Vehicle Design Institute and the Institute of Unmanned Aircraft. Among the projects is the ASN-206, developed by the Xi'an ASN Technology Group, which boasts a coverage range of 150 kilometers with optical and infrared sensors.

FRANCE. French companies engaging in business partnerships in the People's Republic of China (PRC) have found themselves the victims of **industrial espionage**, with joint ventures being abused as conduits for the illicit acquisition of proprietary commercial information. The state-owned Renault car manufacturer has claimed to have lost sensitive data through the corruption of its senior management in the PRC, and TGV contractors bidding to participate in the construction of a high-speed train found themselves excluded after they had made a significant commitment in sharing expertise.

The French intelligence community has issued warnings concerning the activities of 20,000 PRC students in France and cited the example of a visitor, a member of an official delegation, taking a sample of a patented liquid while on a tour of a laboratory by dipping his tie into it. Reportedly, in 2000, the **Direction Générale de la Sécurité Extérieure's (DGSE)** representative in Beijing succumbed to a **honeytrap** and defected.

Prior to the G20 finance ministers meeting in Paris in February 2011, a concerted attempt was made to illegally access an estimated 10,000 French government computers, an attack that was reportedly traced to the PRC. *See also* BOURSICOT, BERNARD; CYBER ESPIONAGE; TECHNOLOGY ACQUISITION.

FRANK, DESMOND DINESH. On 8 October 2007, Desmond Dinesh Frank, a citizen and resident of Malaysia and the operator of Asian Sky Support in Malaysia, was arrested in Hawaii by U.S. Immigration and Customs Enforcement agents and charged in November with conspiring to illegally export C-130 military aircraft and training equipment to the PRC, illegally exporting defense articles, smuggling, and two counts of money laundering. According to the prosecution, he had attempted to illegally export 10 indicators, servo-driven tachometers used in C-130 military flight simulators, to Malaysia and ultimately to **Hong Kong**, without the required license. In May 2008, Frank pleaded guilty to the charges and, in August 2008, was sentenced in Massachusetts to 23 months' imprisonment. *See*

also TECHNOLOGY ACQUISITION; UNITED STATES OF AMERICA (USA).

G

GARDELLA, LAWRENCE. Shortly before his death in February 1981, a former U.S. Marine published a memoir, *Sing a Song to Jenny Next*, described as “the incredible true account” of a secret mission into China in May 1952. He claimed to have been parachuted into Manchuria to join a group of 25 Nationalist guerrillas and attack a nuclear facility beneath the Sungari Reservoir. Having achieved his objective and in the face of overwhelming odds, Gardella had trekked across 1,000 miles of China in just 22 days and had made contact with American forces, which arranged for him alone to be collected off the beach by a U.S. Navy submarine. Upon his return, the lone marine was congratulated by President Harry S. Truman, on 28 June 1952, at the U.S. Navy hospital at Annapolis, who swore him to secrecy.

In the decade following publication, numerous official documents were declassified and released by the U.S. National Archive, which revealed that some military units, including several Ranger companies, had indeed infiltrated **North Korea** during the **Korean War**, penetrating far behind enemy lines, and invariably had been landed by sea. However, none of the units mentioned, nor the missions listed, bore any resemblance to Gardella’s tale. *See also UNITED STATES OF AMERICA (USA).*

GENERAL STAFF DEPARTMENT / PEOPLE’S LIBERATION ARMY (GSD/PLA). The General Staff Department (*Zongcanmou Bu*) of the **People’s Liberation Army** is a military component of the Central Military Commission (CMC). The GSD/PLA, under the supervision of the CMC, organizes and directs the PLA’s military units nationwide, as well as plans and builds the PLA’s armed forces, and consists of several departments, including the First Department (*Zuozhan Bu*), which is concerned with operations. The Second Department (*Zongcan Erbu*) is known alternately as the **Military Intelligence Department** (*Qingbao Bu*) (MID/PLA) or simply the Second Department / People’s Liberation Army (2/PLA). The Third Department (*Zongcan Sanbu*) sometimes referred to as the Technical Department, is responsible for signals intelligence, and the Fourth Department (*Tongxin Bu*) handles communications, electronic intelligence-gathering, and countermeasures.

GENG HUICHANG. In August 2007, a 58-year-old economics specialist from Hebei Province, Geng Huichang, was named the PRC's minister of state security in succession to **Xu Yongyue**. *See also* MINISTRY OF STATE SECURITY (MSS).

GERMANY. With a **Uighur** émigré population estimated at several thousand strong, concentrated in Munich, the Federal Republic of Germany has become a target for Chinese intelligence operations conducted by **Ministry of State Security (MSS)** personnel operating under consular cover. In December 2009, a Chinese consular officer was expelled, having been accused of spying on the expatriate Uighur community, and in April 2011, a 64-year-old Uighur identified only as "L" was charged with having passed information about local Uighurs to the MSS between April 2008 and December 2009.

German companies seeking to develop joint ventures in the People's Republic of China (PRC) have also found themselves victim of **industrial espionage**, where Chinese partners have either expropriated proprietary technology or illicitly copied and exploited sensitive data. One such example was the design of Germany's high-speed ICE train, which was found incorporated into the Chinese equivalent.

GE YUEFEI. In June 2006, two NetLogic Microsystems employees, Ge Yuefei, a Chinese national aged 34 of San Jose, and **Lee Lan**, an American aged 42 of Palo Alto, were indicted on **industrial espionage** charges, having been identified by a **Federal Bureau of Investigation (FBI)** source as being responsible for the theft of trade secrets. The information had come from an anonymous e-mail traced to Ge's wife. According to the FBI's Christian Cano, Ge and Lee had attempted to receive funding from **Project 863**, also known as the National High Technology Research and Development Program of China, and China's General Armaments Division and had illegally downloaded proprietary software designed to develop a network coprocessor chip. The pair had formed SICO Microsystems, a Delaware corporation, to market information stolen from **Taiwan Semiconductor Manufacturing Company**. *See also* INDUSTRIAL ESPIONAGE; TECHNOLOGY ACQUISITION; UNITED STATES OF AMERICA (USA).

GHOSTNET. In March 2009, a concerted attack on computer targets in the West, identified as having originated in the People’s Republic of China (PRC), was named “GhostNet” and was traced to an attempt to download illicit software, usually a Trojan Horse virus containing a remote access tool (RAT) (known as “Gh0st RAT”) and concealed behind innocent-looking e-mail attachments, into systems run by Tibetan refugees on behalf of the Dalai Lama at Dharamsala in **India**.

Pentagon intelligence analysts declared that the **People’s Liberation Army (PLA)** “often cites the need in modern warfare to control information, sometimes termed ‘information dominance’” and suggested that “China has made steady progress in recent years in developing offensive nuclear, space, and cyber-warfare capabilities, the only aspects of the PRC’s armed forces that, today, have the potential to be truly global.” This view conformed to a policy announced at the 10th National People’s Congress in 2003 concerning the creation of “information warfare units,” when General Dai Qingmin was reported as having predicted that Internet attacks would be mounted in advance of military operations to cripple enemies. Since then, the PLA has been linked by Western investigators to the Red Hacker Alliance, an ostensibly independent group of cyber saboteurs responsible for numerous attempts to overwhelm target commercial and government websites and systems in the United States.

Between 2007 and 2009, GhostNet was thought to have been responsible for many coordinated “denial of service” attacks, and some 1,395 computers in 103 countries had been found to contain covert programs, which included some located in embassies that remotely activated recording systems. A Cambridge University study entitled *The Snooping Dragon: Social-Malware Surveillance of the Tibetan Movement*, published in March 2009, concluded that GhostNet had been officially sponsored by Beijing. Another study, completed by the forensic analysts MANDIANT in 2010 concluded that the “vast majority” of the advanced persistent threat (APT) attacks experienced by American firms, such as Google and Adobe, could be traced back to the PRC. The attack aimed at Google was especially sophisticated and was discovered to have compromised the search engine’s source codes for the Gaia password management system and to have accessed the legal discovery portals used by the company’s management to cooperate with information requests from law enforcement agencies.

In 2008, ExxonMobil, ConocoPhillips, and Marathon Oil all sustained similar attacks; although, the damage did not become apparent until the following year. An estimated 20 percent of the Fortune 100 companies had endured similar attacks, such as the notorious AURORA incident in January 2010, which had varied in severity from the siphoning off of proprietary data to the deliberate sabotage of card payment encryption systems. According to MANDIANT, the APT attacks are characteristically sophisticated and can easily defeat or circumvent most conventional commercial countermeasures. The specially designed malware involved in these incidents was often low-profile and camouflaged, averaging an insignificant 121.85 kilobytes in size, making it hard to detect. *See also* CYBER ESPIONAGE; FALUN GONG; INFORMATION WARFARE; INFORMATION WARFARE MILITIA; SHADOW NETWORK; TIBET; TITAN RAIN.

GONGAN. The term *Gongan* is the Chinese colloquial reference to the *Gong'anbu*, the Ministry of Public Security.

GOVERNMENT COMMUNICATIONS HEADQUARTERS (GCHQ). The principal British signals intelligence organization, GCHQ maintained a large establishment at **Little Sai Wan** between 1953 and 1982 and employed military personnel and civilians to monitor mainland Chinese radio transmissions. According to a disaffected GCHQ analyst, the facility was heavily penetrated by Chinese agents; although, the only case that resulted in a prosecution was that of **Chan Tek Fei** in 1961. Later, in 1973, two linguists of Taiwanese origin defected to the People's Republic of China and are thought to have compromised many of the local operations. In May 1980, Jock Kane, a 32-year veteran of the organization, complained publicly about wide-scale corruption at Little Sai Wan, and in 1984, after his retirement, the British government injunctioned him on national security grounds to prevent publication of his memoirs, *GCHQ: The Negative Asset*. *See also* GREAT BRITAIN.

GOWADIA, NOSHIR S. A naturalized U.S. citizen originally from India, 68-year-old Noshir Gowadia was arrested in October 2005 at his home in Haiku, Hawaii, by the **Federal Bureau of Investigation (FBI)** and charged with having sold classified information to the People's Republic of China (PRC) about the B-2 Spirit stealth bomber for \$110,000. An avionics

engineer, who had played a key role in the development of the plane, and an acknowledged expert on infrared signature suppression, Gowadia was later charged with having attempted to sell information relating to advanced Cruise missiles to unnamed individuals in Israel, **Germany**, and Switzerland. Between November 1968 and April 1986, Gowadia worked for Northrop Grumman, and he later became a contractor at the Los Alamos National Laboratories in New Mexico. Court documents revealed that Gowadia had been the subject of a Foreign Intelligence Surveillance Act emergency warrant in 2004 when his computer had been examined at Honolulu International Airport. During interviews conducted before he was formally arrested, Gowadia acknowledged having attempted to sell information to contacts in Singapore.

Originally from India, Gowadia received his PhD at the age of 15 and made six trips to the PRC between 2003 and 2005. He was suspected of having visited Chengdu in 2003, where he was thought to have contributed to the development of the J-10 advanced jet fighter produced by the Chengdu Aircraft Design Institute. Also compromised was the next generation stealth technology used by the F-15 Eagle, F-22 Raptor, F-35 Lightning, F-117 Nighthawk, and B-1 bomber.

Prior to his trial, which began in May 2010, the prosecution alleged that evidence of bank accounts in Switzerland and Lichtenstein had been discovered when Gowadia's multimillion-dollar ocean-front home on Maui's north shore had been raided. Apparently, Gowadia, having become involved in a dispute with the Los Alamos National Laboratory and the U.S. Air Force in 1993, had enabled Chinese engineers to design a cruise missile able to evade air-to-air heat-seeking missiles. He had also sent classified information to a Swiss official in 2002 as part of a proposal to develop infrared reduction technology for a military helicopter and had given secrets to foreign businessmen in Israel and Germany in proposals to develop the same kind of technology for commercial aircraft.

Gowadia's trial lasted four months, and in August 2010, the jury took six days to find him guilty on 14 charges of conspiracy, tax evasion, money laundering, and breaches of arms export controls. He was sentenced to 32 years' imprisonment. *See also* TECHNOLOGY ACQUISITION; UNITED STATES OF AMERICA (USA).

GREAT BRITAIN. With a history of military and commercial interests in China dating back to the Opium Wars in 1839, Britain's presence in the

International Settlement in **Shanghai**, and its control over **Hong Kong**, gave successive United Kingdom governments a strong strategic motive to recover its colony when it was liberated after 44 months of Japanese occupation in August 1945. Among the first British personnel to return to Hong Kong were members of the **British Army Aid Group**, which also fulfilled an intelligence collection role on the mainland.

During the Cold War, Hong Kong provided an invaluable listening post from which Britain and its allies could monitor developments in the People's Republic of China (PRC), a country governed by a totalitarian regime and largely closed to outsiders. Britain's responsibilities included internal security, reliant on the **Royal Hong Kong Police** and **Special Branch** liaising closely with **MI5**; external defense, with a permanent garrison in the New Territories protecting the border and the Royal Navy patrolling the coastline; the Royal Air Force based at Kai Tak, equipped with helicopters, fighters, transports, and amphibious aircraft; and Government Communications Headquarters, analyzing signals intelligence at **Little Sai Wan**. In addition, the **Secret Intelligence Service** maintained a local station, sharing the task of screening refugees with a project developed in 1950 by the **Central Intelligence Agency** station chief, Fred Schultheis, operating from the **United States Consulate General**.

Britain was in conflict with the PRC, albeit through Communist surrogates, during the **Malayan Emergency**, and much of the government's subsequent foreign policy east of Suez was dictated by a requirement to defend Hong Kong from a neighbor that exercised a grip on the colony's water supply, could not be prevented from mounting an invasion overland, and effectively controlled much of the local workforce. This uneasy relationship was maintained until the Beijing's leadership indicated that the lease over Kowloon would not be extended in 1997 and that the PRC's historical claim to British territory on the mainland would be renewed. After lengthy negotiations, a compromise was reached, with the Communists pledging to establish a Special Administrative Region in which many of Hong Kong's conventions and customs could survive separately without total integration into the PRC for 50 years.

The British intelligence authorities encouraged a generation of Sinologists, prominent among them Percy Cradock, **Richard Evans**, and Nigel Inkster; although, there was rarely a consensus about Chinese Communist intentions, especially in relation to Hong Kong's future. Whereas Beijing

took the closest interest in the colony's internal affairs, it would not appear that the political leadership made any attempt through the PRC's intelligence services to influence the course of the negotiations. Following the 1997 handover, the **Ministry of State Security** apparatus in London has, according to MI5, concentrated on **technology acquisition**, maintaining a large staff at the London embassy to support these business-orientated operations. *See also UNITED STATES OF AMERICA (USA).*

GUAN FUHUA. In 1983, Colonel Konstantin Preobrazhensky, a KGB officer working under TASS journalistic cover at the Tokyo *rezidentura*, attempted to recruit Guan Fuhua, a photochemist from the China **Academy of Sciences** who was researching cures for radiation sickness at the Tokyo Technological Institute. Although local KGB officers usually approached their Chinese targets by offering them part-time work as language teachers, Preobrazhensky gained Guan's trust by paying a professional interpreter to translate much of his course work into good English. In return, Guan supplied his KGB contact with Chinese and Japanese data of value to the Russian chemical industry, but this attracted the attention of the Tokyo police, who arrested both men, who were promptly expelled. Under interrogation, Guan revealed that he had been trained to communicate by radio with Moscow and had routinely received messages broadcast from a Russian "numbers station." *See also SOVIET UNION.*

GUANXI. An ancient Chinese practice of relationships and obligations, *guanxi* essentially means that there are obligations to be of assistance to those who have assisted you in the past that extends to family members. *Guanxi* often is a factor in Chinese intelligence gathering, especially as related to **Overseas Chinese**. *See also HONEYTRAP; MINISTRY OF STATE SECURITY (MSS).*

GUOANBU. The unofficial title of the foreign branch of the People's Republic of China's **Ministry of State Security**, the word is an acronym for *Guojia Anquanbu*, an organization created in 1983 and announced by Premier Zhao Ziyang to the Sixth National People's Congress. *See also ILLEGALS; OVERSEAS CHINESE.*

GUOJIA ANQUANBU. *See MINISTRY OF STATE SECURITY (MSS).*

GUO WANJUN. On 28 November 2008, a Chinese missile expert was executed with Wo Weihan, having been convicted of espionage for **Taiwan** and the **United States**. Both men had been arrested in 2005, and at their trial two years later, Guo was convicted of having sold classified ballistic missile information to Wo, who was described as a businessman and said to have received \$400,000 from the **Military Intelligence Bureau**, which had given his wife \$300,000 to open a restaurant in Austria. *See also UNITED STATES OF AMERICA (USA).*

H

HAINAN INCIDENT. On 1 April 2001, a United States Navy EP3V Orion ARIES II (Airborne Reconnaissance Integrated Electronic System) aircraft, one of twelve of the Fleet Reconnaissance Squadron (VQ-1) at Kadena on Okinawa, made an emergency landing at Lingshui, on the Chinese island of Hainan, after it had been in a collision with one of two People's Liberation Army Navy F-8 twinjet Finback II interceptors. Wang Wei, the pilot of the MiG-21 variant, ejected, but his body was never recovered.

Based at the Naval Air Station Whidbey Island, Washington, VQ-1 was the U.S. Navy's largest squadron, with 75 officers and 350 other ranks, and flew from detachments deployed to Misawa on Honshu, Manama in Bahrain, Rota in Spain, and Crete and on counter-narcotics flights from Manta in Ecuador. With a duration of 10 hours, the EP3Vs undertook routine signals intelligence intercept missions, but the flight in April would experience harassment in international airspace from one of the Chinese pilots.

The crew of 24, which included 3 women, attempted to destroy the signals intelligence intercept and Link-11 STORY BOOK secure communications equipment aboard, but they were taken into custody before they could complete the task. They were released after 11 days, and the plane was dismantled and, in July, loaded onto a giant Antonov An-124 leased cargo aircraft when the Chinese refused to allow it to be repaired and flown out to the Lockheed Martin factory in Marietta, Georgia. The EP3V's pilot, Lieutenant Shane Osborn, who would be decorated with the Distinguished Flying Cross, was flown out with his crew on a chartered Continental 737 to Anderson Air Force Base on Guam and then transferred on a C-17 to Hickham Air Force Base on Hawaii for debriefing. *See also UNITED STATES OF AMERICA (USA).*

HALPERN, ERIC. The founder of the *Far Eastern Economic Review*, Eric Halpern spent most of World War II as a Jewish refugee from Vienna in **Shanghai**, but when the journalist applied for a visa in 1946, to enter **Hong Kong**, the local **security liaison officer (SLO)** referred the request to MI5's headquarters in London, where there was considerable disquiet on the grounds that he had been associated with the Japanese during the war and,

thereafter, was suspected of having intelligence links to the Soviets, the **Kuomintang**, and the United States. The SLO was asked to “take some action to remove him from Hong Kong” because “he looks to us as if he is the kind of person who, as long as he remains, will be a perpetual and rather nagging security headache.”

In 1939, Halpern, then age 37, had joined the staff of a Shanghai journal, *Finance and Commerce*, but it had closed down in December 1941 when the city was occupied by the Japanese. Thereafter, according to MI5, Halpern had been “one of the chief rats for S. Saito, the former head of foreign affairs in the Shanghai Municipal Police.” A dossier compiled by the **Office of Strategic Services (OSS)** described him as “a suspicious character” who had collaborated with Saito in black market speculations and extortion schemes. Halpern’s OSS file recorded that when he had reached Hong Kong on a visitor’s visa in 1946, he immediately contacted the Special Branch and had claimed to have come to the colony “in order to resume publication of *Finance and Commerce*.” However, his MI5 file also shows that, at that time, a police informant told Special Branch that “his publishing activities were merely a blind” and that Halpern’s main purpose was “to contact U.S. intelligence.”

Halpern also applied for a job with British intelligence, telling Special Branch that he had worked for OSS in Shanghai, informing the Americans about “atomic research by the Japanese in China . . . especially the activities of General **Tai Li** (head of Nationalist Chinese intelligence) and his people in connection with atomic research.” However, he said, he preferred “British progressiveness of thought” to the U.S. “mode.” Accordingly, he wrote of himself, “the applicant is desirous of serving the British Empire.” In London, Halpern’s application was described as “possibly. . . a penetration attempt on behalf of Americans or some other power,” and his credentials were checked with the Americans, prompting the head of **Special Branch** to conclude, “I am not at all convinced that the Americans have not made more use of him than they care to say.”

Halpern’s MI5 file reveals that it was decided to allow Halpern to stay in Hong Kong “in the hope that it would be possible to find out for whom he was working.” In December 1947, he was prosecuted “for giving frivolous information about his nationality when registering at a hotel,” and when he visited Singapore and Ceylon, the local SLOs were alerted by MI5 and asked to report on his activities. The SLO in Colombo reported to his

counterpart in Hong Kong that “although nothing adverse is recorded by the police here, his behavior is said by them to have been ‘rather peculiar.’” Then, in 1952, the SLO contacted London with an offer to cover Halpern’s expenses while a guest of a Soviet-organized economic conference in Moscow.

Halpern remained with the *Far Eastern Economic Review* until 1958, when he was succeeded by the flamboyant Derek Davies, a former **Secret Intelligence Service (SIS)** officer, who edited the magazine until 1989. Davies, who died in 2002, had worked on the *Financial Times* after having served with SIS in Saigon, Hanoi, and Vienna.

HAN GUANGSHENG. Formerly a senior People’s Republic of China (PRC) security official who had worked for the **Central Bureau 610**, Han Guangsheng disappeared while part of a delegation visiting Toronto in 2001 and applied for asylum, claiming to have been the head of the Shenyang **Ministry of Public Security**, the *Gong'anbu*, where he also had responsibility for local labor camps.

On 7 July 2005, Han surfaced to support claims by **Chen Yonglin** and **Hao Fengjun** that the PRC was managing informants in **Canada**’s Chinese community and routinely gathered economic intelligence, saying, “I do know that the **Chinese Communist Party** sent people to collect intelligence information, including embassy and consulate staff. Some of the reporters coming from state Chinese media and visiting scholars are also given special spying tasks to carry out.”

Hao’s application for asylum was rejected in 2005 by the Canadian Immigration and Refugee Board on the grounds that he had been “complicit in crimes against humanity.” He is believed to be still appealing the decision.

HANSON, HAROLD DEWITT. In March 2009, a retired U.S. Army colonel, Harold Dewitt Hanson, and his Chinese wife, **Yaming Nina Qi Hanson**, were charged with conspiracy to violate an export ban on sales of computerized controls for unmanned aerial vehicles to the People’s Republic of China (PRC). Hanson worked at the Walter Reed Army Medical Center and for a Maryland company, Arc International LLC. According to the prosecution, Hanson began in 2007 to attempt to acquire autopilots from a Canadian manufacturer, MicroPilot of Manitoba, for export to the Xi’an Xiangyu Aviation Technical Group in the PRC. Initially,

Qi Hanson claimed that the autopilots would be used by a model airplane club in China, but when told the autopilots had been designed for use on unmanned aircraft and not for model airplane use, she insisted that they would be used by U.S. aircraft to record thunderstorms, tornadoes, and ice pack melting rates in the Arctic.

After having purchased 20 of the autopilots for \$90,000 and her false assurances, in August 2008, Qi Hanson flew to **Shanghai** and personally delivered the items to Xi'an Xiangyu Aviation Technical Group in the PRC. Both Hansons pleaded guilty on 13 November 2009 to felony false statement violations, and in February 2010, Qi was sentenced to 105 days in jail with credit for time served, placed on one year of supervised release, ordered to pay a fine of \$250 and a \$100 special assessment fee and ordered to attend an export education training program sponsored by the U.S. Department of Commerce. Hanson was sentenced to two years' probation, fined \$250 and a \$100 special assessment fee, ordered to perform 120 hours of community service, and also ordered to attend an export training program sponsored by the U.S. Department of Commerce. *See also* INDUSTRIAL ESPIONAGE; TECHNOLOGY ACQUISITION; UNITED STATES OF AMERICA (USA).

HANSON HUANG. A Chinese American born in **Hong Kong** in 1951, Harvard-educated lawyer, Hanson Huang was detained in Beijing under mysterious circumstances in January 1982, and although embassy diplomats experienced great difficulty in gaining consular access to him, his old friend Katrina Leung, codenamed **PARLOR MAID**, was able to visit him in prison on her very first attempt. Apparently arrested in his hotel while employed by Armand Hammer's Occidental Oil, Hanson was sentenced to 15 years' imprisonment for espionage after having resigned from Webster and Sheffield, his firm in New York, mentioning that he intended to seek treatment for his cancer in the People's Republic of China (PRC). After graduating from Harvard Law School, Hanson had gained a post at the prestigious Chicago firm Baker and McKenzie.

The PRC authorities made no public reference to Hanson's arrest until February 1984, and there was no obvious reason for his incarceration as he had been considered previously, while a student in the **United States**, as a PRC loyalist who had campaigned for the PRC's sovereignty during the territorial dispute over the Diaoyutai Islands, in the East China Sea, claimed by both **Taiwan** and **Japan**.

HAO FENGJUN. In June 2005, Hao Fengjun defected from the PRC consulate in Sydney, just two weeks after the first secretary, Chen Yonglin, had taken the same decision. Hao said he was a member of the Ministry of Public Security and was assigned to the 610 Office, which had been created in 1999 to monitor and disrupt Falun Gong activities overseas. Hao told his Canadian Security Intelligence Service debriefers that there were 1,000 Chinese spies in Canada, and two years later, he gave similar evidence to the U.S. Senate Select Committee on Intelligence. *See also* AUSTRALIA; UNITED STATES OF AMERICA (USA).

HARBIN INSTITUTE OF TECHNOLOGY. Although closely associated with the **People's Liberation Army**, the Harbin Institute of Technology is a legitimate academic establishment with several entire departments in the advanced engineering faculties under the control of the **China Aerospace Corporation**.

HIGH ALTITUDE SAMPLING PROGRAM (HASP). The **Central Intelligence Agency**'s High Altitude Sampling Program commenced in September 1957 with the delivery to the 4080th Strategic Reconnaissance Wing of five specially modified **U-2** aircraft designed to collect evidence of Soviet nuclear tests. In 1958, the project was extended to the People's Republic of China, where Detachment C made regular HASP overflights until the end of 1959. *See also* AIRBORNE COLLECTION; CHINESE NUCLEAR WEAPONS; UNITED STATES OF AMERICA (USA).

HINTON, JOAN. A graduate of Cornell and the University of Wisconsin, Joan Hinton was a gifted physicist and a committed political activist, although never a formal member of the Communist Party of the United States of America. Born in 1921 and educated at Bennington College, she joined the Manhattan Project at Los Alamos, but having attended the first test in July 1945, resigned when President Harry S. Truman decided to drop atomic weapons on **Japan**. She then worked with Enrico Fermi at the Argonne Laboratory in Chicago and, in December 1947, moved to **Shanghai**, where she married an American agriculturalist and lived with her brother William and his wife, both ardent Communists.

In September 1951, Hinton publicly denounced the **United States** government for what she alleged was the use of germ warfare in Korea and continued thereafter to make English-language propaganda broadcasts from

Beijing. She settled in Xian but, in 1966, moved back to Beijing as a permanent resident, an extraordinarily rare status, considered by the Western intelligence community to be a reward for her contribution to the development of the uranium weapon modeled on the FAT MAN bomb she had worked on at Los Alamos. *See also* CHINESE NUCLEAR WEAPONS; QIAN XUESEN.

HO CHIH-CHIANG. A Taiwanese businessman, Ho Chih-chiang was charged by the Shihlin Prosecutor's Office in **Taiwan** in April 2010 with spying for the People's Republic of China (PRC), bribery, and violations of the laws protecting the island's national security. According to the indictment, Ho, who had conducted business in the PRC, had been recruited by a PRC intelligence agency in 2007 to collect national security information in Taiwan in exchange for financial incentives and other privileges. Acting on Chinese instructions, Ho had attempted to recruit a **National Security Bureau (NSB)** officer named Chao in an effort to find out about the government's policies on **Falun Gong**, Tibetan independence, **Japan**, and diplomatic information. Allegedly, Chao had been offered liquor, \$20,000, and other sums several times larger than his retirement pension in return for details of the NSB's overseas operations and its satellite communication routings, but the offer had been rejected. *See also* TIBET.

HOLT, HAROLD. The former prime minister of Australia, Harold Holt disappeared while swimming near his home in Portsea, Victoria, in December 1967. The official police report into the incident concluded the following year that, despite the absence of a body, he had most likely died of drowning. This was the generally accepted verdict until 1983, when a respected Reuter's journalist, Anthony Grey, published his sensational book, *The Prime Minister Was a Spy*, which claimed that Holt had been a lifelong spy, working first for the Nationalist Chinese and then for the People's Republic of China (PRC), who had been spirited away from his home by submarine shortly before the Australian Security Intelligence Organisation (ASIO) closed in on him.

The author of four novels and the survivor of two years of solitary confinement in his home in Beijing as a hostage during Mao Zedong's disastrous Cultural Revolution, Grey was an experienced foreign correspondent who also presented a current affairs program broadcast on

the BBC World Service. Grey did not identify the original source of his story but described him as a retired Royal Australian Navy officer who, “not wishing to draw undue attention to himself,” decided he would prefer to remain anonymous. With such a creditable author, the book was taken quite seriously by many commentators, as it appeared to be a very detailed dossier of a truly astonishing case of top-level espionage.

Grey alleged that Holt had been recruited in 1929 by Sung Fa-tsiang of the Chinese Consulate General in Melbourne, who had bought a series of magazine articles from the young Queen’s College law undergraduate. A year later, having signed receipts for several payments, Holt allegedly was asked by Sung’s replacement, Li Hung, who was later to be China’s vice-consul in Sydney, to act as a secret representative of the Nationalist Kuomintang government and thus began his clandestine relationship with China that was to last his lifetime. When, in August 1935, Holt had been elected to the House of Representatives for the right-wing United Australia Party (UAP), he was “a fully fledged spy” and had been given the nom de guerre “H. K. Bors.” However, in May 1967, Holt allegedly read an ASIO report referring to his own secret codename, “H. K. Bors,” and took fright, calling an emergency meeting with Wong, at which he asked to be rescued. Wong judged that Holt was close to a breakdown and plans were made to infiltrate the spy by submarine the following December from the beach off his holiday home.

According to Grey, Holt was seized by two Chinese frogmen as he snorkeled in shallow water and conveyed aboard the escape hatch of a submarine lying submerged close by. The prime minister was then spirited away to China, where he was granted political asylum, and supposedly lived in quiet retirement for many years, advising Beijing on international trade issues.

According to the author, *The Prime Minister Was a Spy* was written after he had met an unnamed mysterious Australian businessman who first approached him in May 1983, having undertaken much of the research while pretending to have been working on Holt’s biography. The businessman was Ronald Titcombe, a former Australian naval intelligence officer, who claimed that he had been tipped off in July 1973 by a Chinese official and that, after he had expressed interest in the story, he had traveled to Hong Kong in 1975 to obtain semiofficial confirmation. At a further meeting, organized in Macao in February 1983, Titcombe had sought

further details, but although he had not received any conclusive proof, he was able to persuade Grey that the central story had been corroborated and was supported by plenty of circumstantial evidence.

While Grey apparently never questioned the credentials of his informant, it turned out that Lieutenant-Commander Titcombe had been accused in 1967 of sharing classified information with his mistress and, subsequently, had been asked to resign his commission in the Royal Australian Navy. Since then, Titcombe had pursued a controversial business career as an entrepreneur, seeking to promote yachting marinas in such diverse locations as Grenada, Chichester, and Conway, but none had proved viable. When the *Observer* and the *Sunday Telegraph* denounced the book as a hoax, Titcombe had sued for libel, and his litigation had been settled by the *Observer*; although, in 1989, he abandoned the action against the *Sunday Telegraph*.

HONEYTRAP. The Ministry of State Security (MSS) occasionally uses sexual entrapment in the People's Republic of China (PRC) as a technique to coerce potential agents, including foreigners; although, it does not deploy its own staff to participate and depends on intermediaries and surrogates. Evidently, the MSS regards the risks inherent in allowing one of their own officers to engage in seduction as being unacceptably high; although, other Chinese women are sometimes encouraged to cultivate a suitable target, both domestically and overseas, and the MSS has been known to intervene once a relationship with an individual of interest has begun and to request cooperation. Generally, MSS women officers are well educated and would be unwilling to compromise their careers or the interests of their families by engaging in such activities themselves. Similarly, the MSS itself, as a **Chinese Communist Party** organ, is reluctant to acknowledge requiring its own personnel to act in a way that might embarrass the leadership. Nevertheless, if the opportunity arises, the MSS will certainly turn a blind eye to an entrapment that could reap dividends and will also try to create the conditions in which a potential source encounters prostitutes or other potentially susceptible women.

When the MSS adopted honeytraps, in the mid-1980s, the case officers involved were inexperienced, and initially the results were unpromising. In one incident, a former KGB officer was invited to visit the PRC after he had been approached in **Russia** by an MSS agent posing as a businessman, and he formed an attachment to a Chinese journalist. However, the MSS case

officers intervened too early, before a sexual relationship had started, and the Russian withdrew, leading the MSS to conclude that honeytraps require plenty of time to flourish before an overt step is taken. In a case of **industrial espionage** detected by a French intelligence agency, the representative of a major pharmaceutical company was wined and dined by a Chinese girl who slept with him. He was later confronted with a video recording of the encounter in an attempt to blackmail him, which proved successful.

In early 2006, a cipher clerk attached to the Japanese consulate in **Shanghai** committed suicide after he had succumbed to blackmail involving an illicit relationship and then reported it to colleagues. Although the death was an isolated incident, there have been plenty of suspected honeytraps, with U.S. Foreign Service officers (FSO), unaccompanied by their spouses, being apparent targets. In one example, in the early 1990s, a married FSO, alone in Shenyang, was found to have developed a sexual relationship with a Foreign Service National woman employed at his consulate. The affair, which was detected early with the FSO quickly being transferred home, was later found to have been part of an intelligence operation conducted by the **Ministry of Public Security (MPS)**; although, it remained unclear whether any classified information had been compromised. Nor was it obvious what, if any, role had been played by the MSS which, in 1984, created a local branch to support provincial MPS operations in Liaoning Province and the city of Shenyang.

In other cases, a U.S. diplomat fathered a child with an embassy guard in Beijing, and FSO dependents have become involved with local Chinese, doubtless under MSS sponsorship and supervision. In 2000, the defection of representative of the **Direction Générale de la Sécurité Extérieure** in Beijing appeared to be motivated by an extramarital affair, but it is likely that the MSS simply allowed the relationship to develop without having stage-managed it from the outset.

Unlike the Soviet KGB and the East German Hauptverwaltung Aufklärung counterparts, the MSS has not institutionalized honeytraps or established a specialist department devoted to sexual entrapment techniques. Instead, all MSS operational groups are familiar with the methodology and, with the sanction of senior personnel at director and ministerial levels, can obtain the required authority to plan and mount such a scheme. *See also* BOURSICOT, BERNARD; DENG; FRANCE;

GUANXI; JAPAN; LO HSIEN-CHE; MI5; UNITED STATES OF AMERICA (USA).

HONG KONG. A center for British intelligence operations since the establishment of the **Far East Combined Bureau** in 1932, the colony accommodated both an MI5 **security liaison officer** and a **Secret Intelligence Service** station to support the local **Special Branch** and collect intelligence on mainland China. Also located in Hong Kong were the regional signals intelligence organization at **Little Sai Wan**, several Royal Air Force (RAF) radio interception facilities, and a large radar installation, manned by RAF 117 Signals Unit atop Tai Mo Shan, at an altitude of 2,000 feet, in the New Territories.

Throughout the Cold War, Hong Kong was a major center of espionage as a principal gateway in and out of the mainland and where the **Central Intelligence Agency**, the Royal Canadian Mounted Police Special Branch, the **Australian Secret Intelligence Service**, and the Australian Security Intelligence Organisation maintained local representatives. In addition, the Soviets established both KGB and GRU *rezidenturas* in the colony, the Taiwanese ran a news agency front, and the Chinese operated from several local front organizations, including the Communist Party's office in the Federation of Trade Unions building.

Since becoming a Special Administrative Region in 1997 under control of the People's Republic of China (PRC), Hong Kong has acquired the status of a transshipment point for embargoed goods, often military equipment, to be diverted across the border to the mainland. Dozens of ostensibly legitimate Chinese-controlled businesses, and organizations, such as the pro-Beijing newspapers *Takung Pao* and *Wen Wei Po*, have sprung up on the island, whereas their true function is to support PRC-sponsored intelligence operations and facilitate illicit technology transfer. *See also* AUSTRALIA; AUTUMN ORCHID; BRITISH ARMY AID GROUP (BAAG); CANADA; GREAT BRITAIN; KASHMIR PRINCESS; LI CHU-SHENG; TECHNOLOGY ACQUISITION.

HOU DESHENG. The assistant military attaché at the People's Republic of China (PRC) embassy in Washington DC, Hou was arrested by the **Federal Bureau of Investigation (FBI)** on 21 December 1987 with Zang Weichu, an official from the PRC consulate in Chicago, as they received supposedly classified documents in a restaurant, and both were expelled.

The FBI's surveillance of Hou had revealed his visits to the Vector Microwave Research Corporation in Alexandria, Virginia, which was headed by a former director of the **Defense Intelligence Agency**, retired lieutenant general Leonard Perroots. Perroots's company received a large number of classified contracts from the Defense Department, and Hou attempted to gain information about a U.S. Navy electronics program. At the FBI's request, Vector pretended to cooperate with Hou and allowed Hou access to a supposedly classified document deliberately left unattended in the office. The operation concluded when Hou, who often complained of his \$75 a month salary, was taken into custody.

Upon his return to Beijing, and while still working for the Chinese government, Hou was appointed the local representative for Mayes and Company, a business owned by the original founder of Vector, Donald Mayes. Under scrutiny by U.S. investigators, Vector ceased trading in 1998, and Mayes, who was living in Mexico when Hou was hired, refused to discuss him; although, a subordinate was quoted in the *Washington Post* describing Hou as "a conduit to other people." *See also* TECHNOLOGY ACQUISITION; UNITED STATES OF AMERICA (USA).

HUANG, ANDREW. On 10 April 2007, Andrew Huang, the owner of McAndrew's Inc., an international export company, pleaded guilty in Connecticut to one count of making false statements to the **Federal Bureau of Investigation**, having been charged the previous year with operating as a representative for the Chinese Electronic System Engineering Corporation, an organization described as the technology procurement arm of the government of the People's Republic of China (PRC). Huang was alleged to have helped broker the illegal sale and transfer of millions of dollars' worth of telecommunications equipment from the PRC to Iraq between 1999 and 2001. *See also* TECHNOLOGY ACQUISITION; UNITED STATES OF AMERICA (USA).

HUANG KEXUE. In July 2010, the **Federal Bureau of Investigation** arrested Huang Kexue, a 45-year-old Canadian scientist living in Westborough, Massachusetts, and charged him with 17 counts of economic espionage on behalf of the People's Republic of China (PRC), including the theft of a commercially important pesticide. Employed for five years by Dow Chemicals in Indiana before he was fired in 1978, Huang was born in the PRC.

In October 2011, Huang admitted he had passed trade secrets belonging to Dow AgroSciences and Cargill to the Hunan Normal University, losses valued at \$7 billion. *See also* CANADA; INDUSTRIAL ESPIONAGE; TECHNOLOGY ACQUISITION.

HUANG XIAN. In May 1985, Huang Xian, a Chinese from **Hong Kong** who had been convicted of espionage and sentenced the previous year to 15 years' imprisonment, was released from prison in the People's Republic of China because of his "willingness to serve Chinese modernization."

HU SIMENG. A graduate of Beijing University, 30-year-old Hu Simeng married a fellow student, Horst Gasde, in 1966 and returned with him to East Berlin to take up an academic post teaching languages at Humboldt University. She was recruited by her husband to supply information to the Hauptverwaltung Aufklärung (HVA) about her students and the local Chinese émigré community, without declaring that she was already working as a source for the Chinese **Ministry of State Security**. In 1978, she was deliberately "dangled" by the HVA in an attempt to penetrate the **Central Intelligence Agency's (CIA)** Berlin base and was recruited, placing her husband on the CIA's payroll. Both academics continued to work for the CIA and HVA until they were exposed in 1989 when the East German regime collapsed.

HUTCHINSON, MILTON. The pilot of a Martin P4M-1Q Mercator based at VQ-1, the U.S. Navy's electronic warfare squadron at Iwakuni, **Japan**, Lieutenant-Commander Milton Hutchinson was killed just after midnight on 22 August 1956, when Chinese MiG fighters attacked his aircraft in international airspace 32 miles east of Wenzhou. His mission was a routine signals interception flight flown on behalf of the **National Security Agency**. All of his crew also perished, and in the subsequent sea rescue search conducted by the Seventh Fleet, only three bodies and some debris were recovered by the USS *David J. Buckley*. The bodies of two technicians were later found by the Chinese and returned, but rumors persisted that two other men had survived the crash and had been held prisoner in **Shanghai**. In March 1957, a U.S. Air Force intelligence officer, Captain Henry D. Chiu, reported that there was credible evidence to believe that two survivors had undergone interrogation by their captors, were in good health, and, from the description given, could possibly be identified as Lieutenant James

B. Deane and either Warren E. Caron or Leonard Strykowski. In the absence of further news and any diplomatic links with Beijing, the incident was quietly shelved. *See also* AIRBORNE COLLECTION; UNITED STATES OF AMERICA (USA).

HWANG JANG YOP. The most senior **North Korean** politician ever to defect, Hwang Jang Yop was head of the Kim Il-sung University and then chairman of the Supreme People's Assembly, a post he held for 11 years, until 1983, when he was dismissed for what was alleged to be his too-close interest in China's capitalist reforms. Even though Hwang had been the principal theoretician responsible for developing Juche Idea, the state ideology, had written a revisionist history of the Democratic People's Republic of Korea that marginalized the **Soviet Union**'s role, and had taught Kim Jong-Il, he was purged and, in 1997, seized the opportunity to defect while on a visit to Beijing.

Reportedly, Hwang had been cultivated for years by the **Ministry of State Security** through an intermediary, a prominent Chinese scholar. Hwang later moved to **South Korea** and became a vocal critic of the Pyongyang regime.

ILLEGALS. Known within the People’s Republic of China’s (PRC) intelligence community as *leng qizi*, which translates to “cold chess pieces,” illegals are agents sent on missions under non-official cover with instructions to remain dormant or frozen until activated. Reputedly, this term was coined by **Zhou Enlai** in the 1930s, when he was conducting underground work in **Shanghai** and he counseled his agents to “do well the work of being a dormant chess piece” (*zuohao leng qizi de gongzuo*). More recent references credit Zhou with having “put in place the dormant chess pieces” (*baibu de leng qizi*). The phrase was also used by a Li Fengtian in early 2010 to describe how the Chinese **Ministry of State Security** had sought to seed **Hong Kong** with long-term sleeper agents.

Unlike the Russian use of illegals, as evidenced by the arrest of 10 agents in the United States in July 2010, PRC illegals tend not to be given clandestine operational assignments and simply integrate into the target host society, preparing to be called upon to play a key role in the future. *See also* CHANG FEN; CHEUNG, MARK; UNITED STATES OF AMERICA (USA).

IMPECCABLE, USNS. In March 2009, the USNS *Impeccable*, an unarmed ocean surveillance ship conducting sonar searches for submarines, was the subject of prolonged harassment by five Chinese boats in international waters 75 miles south of Hainan Island. They included fishing boats, an intelligence vessel, and a patrol boat, which maneuvered aggressively to within 25 feet of the American ship and was sprayed with a fire hose. Their objective was to disrupt the *Impeccable*’s operations, which had been monitored by Chinese Y-12 reconnaissance aircraft, and resulted in a formal diplomatic protest to Beijing. Almost simultaneously, another U.S. surveillance ship, *Victorious*, was approached in the Yellow Sea by a Chinese ship, which illuminated the warship’s bridge with a blinding, high-intensity spotlight. U.S. Navy analysts concluded that these two episodes were connected and had been undertaken deliberately in support of the People’s Republic of China’s disputed claim to an exclusive economic zone extending 200 miles from the country’s coastline. *See also* UNITED STATES OF AMERICA (USA).

INDIA. Sharing a long border in the Himalayas with the People's Republic of China (PRC), India has a long history of commercial rivalry and territorial disputes with both Imperial China and the People's Republic of China (PRC). In October 1962, the **People's Liberation Army (PLA)** attacked at Ladakh and briefly occupied disputed Indian territory before withdrawing the following month. Nevertheless, the PRC continued to give covert support to Naga rebels in a conflict that would continue in the Jotsoma jungles, at an estimated loss of 100,000 lives, until a ceasefire was negotiated in 1977.

In 1967, there were further skirmishes in Sikkim, and in 1987, tension rose again, with the Indian government concerned about the influence of the Maoist Communist Party of India, particularly in the border states. Sino-Indian relations have also been exacerbated by the asylum offered after the 1959 uprising in **Tibet** to the Dalai Lama and his supporters.

The PRC is a significant intelligence collection target for the Research and Analysis Wing, India's Cabinet Office intelligence branch based in New Delhi and created in 1968, while the deployment of PLA forces along the frontier was monitored by the Military Intelligence Directorate, later renamed in 2002 as the Defence Intelligence Agency. In addition, India's formidable internal security apparatus, the Central Bureau of Intelligence, formerly the Delhi Intelligence Bureau, has maintained a close watch on the Communist Party of India, a Maoist movement suspected of links with Beijing and possession of weapons and funds supplied by the PRC; although, the leadership in Beijing has consistently denied this support. Historically, however, the PRC has maintained contact with sympathetic tribes and rebel movements in the border provinces and has participated in undermining successive administrations in the buffer state of Nepal.

Evidence of the PRC's relationship with rebels in Naga emerged when, in January 2011, Wang Qing, a **Ministry of Public Security** officer operating as a television correspondent, was detained and deported after having held a meeting with Thuingaleng Muivah, a leader of the National Socialist Council of Nagalim (NSCN), the province's breakaway movement. According to **Anthony Shimray**, a Bangkok-based arms dealer who had tried to broker the sale for \$1 million of Chinese missiles to the Naga insurgents and was arrested by the Indian authorities, the PRC had a close interest in supporting the insurgents active near the frontier at Twang in Arunachal Pradesh. *See also CHARBATIA; CHINESE NAVAL*

STRENGTH; CHINESE SIGNALS INTELLIGENCE; GHOSTNET; GOWADIA, NOSHIR S.; KAO LIANG; *KASHMIR PRINCESS*; LEE, DUNCAN C.; MALAYAN PEOPLES' ANTI-JAPANESE ARMY (MPAJA); NANDA DEVI; ORIENTAL MISSION; PAKISTAN; SERVICE, JOHN S.; SHADOW NETWORK; SHANGHAI COOPERATION ORGANIZATION (SCO); SINO-SOVIET SPLIT; SMEDLEY, AGNES; SOVIET UNION; SUN WEI-KUO; THIRD DEPARTMENT.

INDUSTRIAL ESPIONAGE. The Western concept of industrial espionage, defined as the illicit acquisition of commercially sensitive proprietary information, is alien to the People's Republic of China (PRC), where no such narrow distinction exists between state and private interests. With industry overwhelmingly in the hands of the state, the state exercises control over commercial entities that in the West would not be regarded as wholly owned state assets. Accordingly, the PRC seeks to protect its assets by extending official secrecy laws to cover ordinary commercial transactions, as the directors of the **Australian** mining combine, **Rio Tinto Zinc**, discovered in 2009 after having negotiated iron ore supply contracts.

In parallel, the PRC promotes the interests of the state's commercial enterprises by officially sponsoring the collection of proprietary information from foreign competitors and the recruitment of sources and intermediaries who engage in the illicit acquisition of protected data and in the circumvention of foreign export controls. As the PRC's principal nondiplomatic overseas representative organization, the **Ministry of State Security** is the chosen channel for much of this activity, with numerous examples of technicians stealing processes and software, ostensibly independent businessmen attempting to purchase embargoed equipment, and well-funded front companies acting on behalf of unidentified clients in Singapore and **Hong Kong**.

According to French intelligence reports, PRC state-sponsored industrial espionage relies on variations of three familiar techniques. The first is the "lamprey," in which a project is announced inviting international tenders. A false competition between rival foreign firms is created, with the participants encouraged to improve their product demonstrations, but once their technical data has been compromised, the project ostensibly is abandoned, leaving the Chinese principals in possession of various proprietary items. In a recent example, **France**'s embassy in Beijing

arranged a six-month course for Chinese engineers in support of a bid to sell TGV transport technology, but eventually interest waned, and the PRC developed its own version, which included components from the TGV and the German ICE train.

Another technique, known as “the mushroom factory,” involves a joint venture that is created in partnership with a foreign firm and is dependent upon the transfer of processes that then become available to local competitors, which offer almost identical products. One such victim was Danone, the French dairy producer, which went into business with Wahaha, the Chinese drinks company. However, when Schneider Electric tried to sue China over a breach of patent registered in 1996, the company was taken to court in the PRC, accused of counterfeiting, and fined 330 million yuan. In other examples, a General Motors joint venture to produce the Spark was undermined by a rival vehicle, the Future, manufactured with GM designs, and the partly state-owned French carmaker Renault discovered in January 2011 that its staff had been bribed by Chinese to disclose confidential information relating to the development with Nissan of electric car technology. Matthieu Tannenbaum and two other senior executives were suspended pending an investigation into what was described by the Élysée Palace as a “Chinese link” and what industry minister Eric Besson called “economic warfare.” *See also* AUSTRALIA; CHANG, THERESA; CHAO TAH WEI; CHENG, PHILIP; CHEN YONGLIN; CHINA AEROSPACE CORPORATION (CAC); CHINESE NUCLEAR WEAPONS; COX REPORT; DU SHASHAN; FEDERAL BUREAU OF INVESTIGATION (FBI); FRANCE; FRANK, DESMOND DINESH; GERMANY; GE YUEFEI; GOWADIA, NOSHIR S.; HANSON, HAROLD DEWITT; HONEYTRAP; HUANG KEXUE; JIN HANJUAN; KHAN, AMANULLAH; KOVACS, WILLIAM; LEE, DAVID YEN; LIANG XIUWEN; LIN HAI; LI QING; LIU SIXING; MENG, XIAODONG SHELDON; MENG HONG; MOO, KO-SUEN; NAHARDANI, AHMAD; PROJECT 863; ROTH, JOHN REECE; SUCCOR DELIGHT; TECHNOLOGY ACQUISITION; TSU, WILLIAM CHAI-WAI; UNITED STATES OF AMERICA (USA); WANG-WOODFORD, LAURA; WEN HO LEE; WU BIN; XU BING; XU WEIBO; YANG FUNG; YU XIANGDONG; ZHONG MING.

INFORMATION WARFARE. In 1985, a **People’s Liberation Army (PLA)** staff officer, Shen Weiguang, wrote *Information Warfare*, which was

serialized two years later by the PLA's leading newspaper, *Jiefangjun Bao*. Since then, the PLA's **Commission of Science, Technology and Industry for National Defense (COSTIND)** has pursued the topic and sponsored symposia that have been addressed by some of the People's Republic of China's (PRC) most influential figures, including **Qian Xuesen** and Zhu Guangya. All have endorsed a strategy of information-based warfare as a key part of the PLA's modernization.

After the 1991 Gulf War, when analysts were impressed by the U.S. Coalition's impressive performance, advocates of information warfare, such as Qian Xuesen, attended the Third Annual COSTIND Science and Technology Committee meeting in March 1994 and demanded the establishment of a national information network and associated technologies. Then in December 1994, COSTIND sponsored a symposium, "Analysis of the National Defense System and the Military Technological Revolution," and another, "The Issue of Military Revolution," in October 1995. The result was the establishment of an Informational Warfare Research Institute, and work on an information warfare simulation center.

Some of the PRC's leading strategists convened in Shijiazhuang in December 1995 for a "Forum for Experts on Meeting the Challenges of the World Military Revolution," at which 30 experts called for the development of weapons that can "throw the financial systems and army command systems of the hegemonists into chaos."

The advocates of Information Warfare claim that these tactics are perfect for modern asymmetrical conflict where underdeveloped countries can gain an advantage against a nation that is "extremely fragile and vulnerable when it fulfills the process of networking and then relies entirely on electronic computers." They suggested that the PRC should abandon the strategy of "catching up" with more advanced powers and "proceed from the brand new information warfare and develop our unique technologies and skills, rather than inlay the old framework with new technologies," thereby leapfrogging into the 21st century as a preeminent military power.

At a COSTIND National Directors' meeting convened in December 1995, the vice chairman of the Central Military Commission, General Liu Huaqing, asserted, "Information warfare and electronic warfare are of key importance, while fighting on the ground can only serve to exploit the victory. Hence, China is more convinced (than ever) that as far as the PLA is concerned, a military revolution with information warfare as the core has

reached the stage where efforts must be made to catch up with and overtake rivals.”

Articles in the PLA’s newspaper, *Jiefangjun Bao*, and in academic journals, such as the *Zhongguo Junshi Kexue* (*China Military Science*), stress the need to develop “perfect weapons,” which serve as “trump cards” (*shashoujian*) to exploit an adversary’s reliance on sophisticated microelectronics.

The PRC’s very public preoccupation with electronic warfare has fueled the suspicion that Beijing routinely sponsors cyber attacks on Western electronic infrastructure, concentrating on some very sensitive sites. For example, in November 2004, it was reported that systems at the U.S. Army Information Systems Engineering Command at Fort Huachuca, Arizona, the Defense Information Systems Agency in Arlington, Virginia, the Naval Ocean Systems Center in San Diego, California, and the United States Army Space and Strategic Defense installation in Huntsville, Alabama, had all experienced intrusions traced back to computers located inside the PRC. *See also* AVOCADO; FALUN GONG; GHOSTNET; INFORMATION WARFARE MILITIA; TECHNOLOGY ACQUISITION; TITAN RAIN; UNITED STATES OF AMERICA (USA).

INFORMATION WARFARE MILITIA. In 1998, press reports from the People’s Republic of China (PRC) disclosed that **People’s Liberation Army (PLA)** computer technicians in Shanxi Province had collaborated with “a certain Datong City state-owned enterprise” to create an experimental **Information Warfare** Militia staffed by 40 personnel drawn from 30 local universities, scientific research institutes, and other facilities. Their purpose was to develop a capability to jam enemy radar systems, interrupt communications, and attack computer networks. Then, in 2006, the influential Chinese Academy of Military Science published a paper that endorsed the concept of electronic warfare operations and called for the creation of additional units. Since then, according to data collected by iDefense in 2008, an Internet security consultancy, a further 33 Information Warfare Militia units have been established across the PRC, usually accommodated in university computer science departments, research institutes, and technology firms staffed by young graduates. In March 2008, the PLA announced that a unit had been formed in Yongning County in Ningxia Province, consisting of 80 personnel divided into three

detachments dedicated to computer network warfare, data collection and processing, and network defense.

In 2009, the **United States**-China Economic and Security Review Commission received a report contracted from the Northrop Grumman Corporation, *Capability of the People's Republic of China to Conduct Cyber Warfare and Computer Network Exploitation*, which noted that the **Ministry of Public Security** had posted recruitment messages on two of the PRC's most notorious computer-hacking forums, www.EvilOctal.com and www.Xfocus.net, offering careers for skilled operators. In addition, volume 6 of *Guofang (National Defense)*, published in 2008, included an article Ding Shaowu entitled "Some Thoughts about Organizing the Provincial Military District Setup to Conduct Training in a Complex Electromagnetic Environment," which drew attention to U.S. Army electronic warfare techniques successfully applied during recent military campaigns in Kosovo in 1999 and in Iraq in 2003. This advocacy prompted a debate within the Chinese open literature, principally in *Zhongguo Junshi Kexue (China Military Science)*, *Zhongguo Guofang Bao (China National Defense News)*, *Jiefangjun Bao (People's Liberation Army Daily)*, and the official newspapers of China's seven military districts, about the need to catch up with Western doctrine. In particular, the term "Integrated Network Electronic Warfare" appeared frequently and was defined as

techniques such as electronic jamming, electronic deception and suppression to disrupt information acquisition and information transfer, launching a virus attack or hacking to sabotage information processing and information utilization, and using anti-radiation and other weapons based on new mechanisms to destroy enemy information platforms and information facilities.

This virus concept (*bingdu*) was embraced by the PLA **General Staff**, which in 2007, circulated a revised Outline for Military Training and Evaluation that included a directive to consider training "under complex electromagnetic environments" a core activity. According to a report published in January 2008 by *Jiefangjun Bao*, 100 senior officers had assembled in the Shenyang Military Region to observe an exercise in which Integrated Network Electronic Warfare was demonstrated and the PLA defended itself from simulated cyber and electronic attacks.

While the evidence of the existence of Information Warfare Militias is clear, the extent of their operations remains a matter of speculation. However, according to Joel Brenner, of the U.S. National Counterintelligence Executive, a substantial proportion of the growing

number of cyber attacks mounted against the American electronic infrastructure has been traced back forensically to the PRC. In 2007, a total of 43,880 malicious attacks were recorded as having been made against the U.S. Department of Defense, a figure revealed by Colonel Gary McAlum, chief of staff of the U.S. Strategic Command's Joint Task Force for Global Network Operations, which escalated by 20 percent the following year to 54,640 incidents. Often, specific facilities in the PRC could be identified as having been responsible for an attack, but more often, it was the nature of the episode and the information sought, that betrayed the likely identities of the perpetrators.

In an example of computer hacking as a method of intelligence collection, rather than sabotage, the PRC was accused by **South Korea** of having penetrated Seoul's Ministry of Defense in June 2010 to access sensitive information about a recent decision to purchase several Global Hawks, the unmanned aerial vehicle (UAV) reconnaissance platform from Northrop Grumman in San Diego. A highly controversial procurement previously banned under the Missile Technology Control Regime, the drones represented a significant improvement in Seoul's surveillance capability and evidently thus became a priority target for Beijing's hackers. *See also CYBER ESPIONAGE; FALUN GONG; GHOSTNET; TITAN RAIN; UNITED STATES OF AMERICA (USA).*

INSTITUTE OF INTERNATIONAL RELATIONS (IIR). Run by the **Second Department** of the **General Staff** of the **People's Liberation Army (GSD/PLA)**, the IIR is located in Nanjing and publishes the fortnightly *Wai Jun Dongtai* (*Foreign Military Trends*). It also offers training courses for military personnel deployed overseas and was formed from the **Foreign Language Institute**, which, until 1964, was based in Zhangjiako. The IIR was originally known as the School for Foreign Language Cadres of the Central Military Commission.

INSTITUTE OF PACIFIC RELATIONS (IPR). A front organization run covertly by the Communist Party of the United States of America before World War II, the IPR was headed by Owen Lattimore and then Michael Greenberg, both identified as Soviet agents. The IPR's true role, to influence public opinion relating to United States' policy toward China with Communist propaganda, was exposed by Elizabeth Bentley in 1945 when

she made a lengthy statement to the **Federal Bureau of Investigation**. *See also* PRICE, MILDRED.

INSTITUTE 21. Also known as the Red Mountain (*Hong Shan*) Institute, Institute 21 was built in 1963, 10 miles northwest of the test headquarters at **Malan**, as the PRC's principal diagnostics and radiochemistry research facility for the country's nuclear weapons program. *See also* CHINESE NUCLEAR WEAPONS.

INTELLIGENCE BUREAU OF THE MINISTRY OF NATIONAL DEFENSE (IBMND). Taiwan's parallel intelligence organization, operating in competition to the more powerful **National Security Bureau (NSB)** controlled by the **Kuomintang (KMT)**, the IBMND's principal area of activity was in northern Thailand and Burma, supposedly running agents across the border into Yunnan Province in the People's Republic of China from the "golden triangle." The IBMND was implicated in the international narcotics trade and, in 1977, was suspected of having supported Ma Sik-yu and his younger brother Ma Sik-chun, **Hong Kong**'s major heroin wholesalers who had backed the *Oriental Daily News*, the colony's Chinese language, pro-Nationalist newspaper. When the **Royal Hong Kong Police** swooped on the Ma empire in February 1977, both men fled to Taiwan, where they were protected from extradition.

In 1983, the appointment of Admiral Wang Hsi-ling, who had spent the previous 12 years in Washington DC, as the IBMND's director caused controversy. His predecessor had been dismissed for corruption, but Wang's career had been in the rival NSB. However, in October the following year, he was implicated in the murder of **Henry Liu**, and all IBMND personnel were expelled from the **United States**. Wang was arrested in Taipei in January 1985 and served six years of a life sentence and was released in January 1991. In the meantime, the IBMND was dismantled and replaced by a new organization, the Ministry of National Defense's Intelligence Bureau.

INTERAERO. On 17 August 2004, a California aircraft parts supplier, Interaero Inc., operated by Arthur Hale, was fined \$500,000 in Washington DC, having pleaded guilty to a breach of the Arms Export Control Act and admitted to having exported six shipments of military aircraft parts, valued at in excess of \$40,000, to China between June 2000 and March 2001,

knowing the consignments were actually destined for **Iran**. Included were Hawk missiles and parts for F-4 Phantoms and F-5 Tiger fighters. *See also TECHNOLOGY ACQUISITION.*

INTERNATIONAL LIAISON DEPARTMENT (ILD). The International Liaison Department of the **Chinese Communist Party (CCP)** operates under the control of the Central Committee and is responsible for links with foreign political parties and routinely collects intelligence and conducts intelligence operations overseas. The *Zhonggong Zhongyang Duiwai Lianluo Bu*, translated literally to “Chinese Communist Party Central Foreign Liaison Department” has undergone a transformation of sorts as international Communism has been on the ebb. Originally, the ILD gained some notoriety when competing with the **Soviet Union** for influence within the worldwide Communist movement, but it also served as a vehicle for intelligence gathering, or *tewu* (“secret work”), while it was under the control of **Kang Sheng**.

Always subordinate to the CCP, the ILD evolved during the period of **Deng Xiaoping**’s reforms and the Soviet collapse and began to portray itself as conducting relations with any foreign political party, Communist, socialist, or otherwise. The ILD’s head traditionally has held ministerial status and even outranked the country’s foreign minister.

INTERNATIONAL LIAISON DEPARTMENT (ILD/PLA). The International Liaison Department of the **People’s Liberation Army’s (ILD/PLA)** General Political Department has been identified by the 2004 *Intelligence Threat Handbook*, published by the OPSEC Inter-Agency Support Staff, as an agency engaged in the clandestine collection of intelligence in the **United States**. Although primarily a propaganda and psychological warfare unit targeted against **Taiwan**, the department was listed in May 2009 by U.S. Director of National Intelligence Dennis Blair as being active in the United States.

INTER-SERVICES LIAISON DEPARTMENT (ISLD). The Far East branch of the British **Secret Intelligence Service** before and during World War II operated under the semitransparent cover of the Inter-Services Liaison Department from offices in Singapore and Kuala Lumpur. Headed by Major Rosher and then from 1941 by a Java planter, G. C. Denham, ISLD made a pact with the Chinese-dominated Malayan Communist Party

to develop intelligence-gathering networks behind the Japanese lines. *See also* GREAT BRITAIN; LAI TEK.

IRAN. Following the imposition of international financial, economic, and military sanctions on Tehran in 1979, evidence emerged of a sustained operation to supply the Islamic Republic of Iran with nuclear and military matériel. In 2006, a group of Iranian businessmen based in Dubai were indicted in Manhattan on charges of conspiring to conceal banned transactions, together with Li Fangwei, the Chinese manager of LIMMT, a company implicated in the illegal procurement of aircraft parts for Iranian jet fighters. Also indicted was Baktash Fattahi, an Iranian resident in the United States. In 2008, a joint investigation conducted by the U.S. Treasury and Department of Defense identified an American company, the Assa Corporation, as acting for the Bank Melli, and connected to another Iranian-owned entity, the Alavi Foundation. *See also* CENTRAL INTELLIGENCE AGENCY (CIA); CHINESE NUCLEAR WEAPONS; INTERAERO; MONTAPERTO, RONALD N.; NATIONAL SECURITY AGENCY (NSA); NORTH KOREA; SHANGHAI COOPERATION ORGANIZATION (SCO); TECHNOLOGY ACQUISITION; UNITED STATES OF AMERICA (USA); WANG-WOODFORD, LAURA; WEI LEFANG.

ITT CORPORATION. On 27 March 2007, the ITT Corporation, a leading manufacturer of military night-vision equipment for the U.S. military, agreed to pay a \$100 million penalty and admitted to having illegally exported restricted night-vision data to the People's Republic of China, Singapore, and Great Britain. The company also pleaded guilty to charges that it had omitted statements of material fact in required arms exports reports. The \$100 million penalty is believed to be one of the largest ever in a criminal export control case, and as part of the plea agreement, the company must invest \$50 million of the penalty toward the development of advanced night-vision systems for the U.S. armed forces. *See also* INTERAERO; TECHNOLOGY ACQUISITION.

J

JAPAN. With a mutual hostility dating back centuries, Sino-Japanese relations have been characterized by war and, from 1931, by the occupation of Manchuria, followed by continuous combat on mainland China until the Japanese surrender in August 1945. Thereafter, Japan provided the **United States** with bases from which to conduct signals intelligence operations, including **airborne collection** and high altitude aerial reconnaissance flights. During the **Korean War**, Japan's naval and air bases proved of critical importance for the United Nations' forces.

While Japan was demilitarized during the American postwar occupation, trade channels developed with the People's Republic of China (PRC), thus making each a target for mainly economic intelligence collection, but the relationship was suspended by Beijing in 1958 as Tokyo cultivated **Taiwan** as an important commercial partner. However, the **Sino-Soviet split** forced **Mao Zedong** to restore the unofficial links and, in 1963, establish a trade mission in Tokyo. In September 1972, after President Richard Nixon's visit to Beijing, formal diplomatic recognition was given to the PRC, despite some territorial disputes over the Senkaku Islands being unresolved.

In Japan, economic intelligence collection is the responsibility of the *Naicho*, the Cabinet Intelligence and Research Office, which is an analytical organization devoid of clandestine collection facilities, thus making it difficult to penetrate; although, Beijing has often attempted to exercise political influence in Tokyo through local Communists. In March 2003, the U.S. National Counterintelligence Executive (NCIX) reported that Beijing sponsored two groups, the Association of Chinese Scientists and Engineers in Japan (ACSEJ) and the Chinese Association of Scientists and Engineers in Japan, both of which were dedicated to the PRC's objectives in the military and commercial fields in the science and technology sectors. Both groups sponsored "Returnee Friendship Committees," distributed propaganda, and promoted academic conferences and other gatherings, often held in the embassy in Tokyo, where information could be exchanged in a forum that circumvented "Western protectionism." According to the NCIX, the ACSEJ had been formed in 1993 and had achieved 731

members, many of them engaged in sensitive research. *See also* KAMISEYA; NATIONAL SECURITY AGENCY (NSA); U-2.

JIANGNAN SOCIAL UNIVERSITY. Located in Suzhou, Jiangsu Province, and not to be confused with the separate Jiangnan University, the Jiangnan Social University was intended to be an annex of the **Beijing Institute of International Relations** but instead has become a **Ministry of State Security (MSS)** training facility for headquarters personnel, rather than the local MSS branch office, offering short-term courses on contemporary topics. Its academic staff also participates in other MSS training programs conducted off-campus.

JIANGSU NATIONAL SECURITY EDUCATION CENTER. At the end of April 2009, the director of the Jiangsu National Security Education museum in Nanjing, Ms. Qian, announced the opening of the establishment, which covers the history of the Communist Party Central Committee's espionage branch since its formation in 1927 to the 1980s and is filled with intelligence-related paraphernalia and gadgetry. A spokesman, Fan Hong, declared that the facility "is for Chinese only."

JIN HANJUAN. Formerly employed for eight years by the Motorola Corporation in Schaumberg, Illinois, Jin Hanjuan was indicted in April 2008 in Illinois on three charges involving the sale of proprietary information contained in thousands of documents to the People's Republic of China (PRC) and to the cellular telephone manufacturer Lemko, without authorization.

Aged 37, Jin had been arrested on 28 February 2007 by U.S. Customs officials at Chicago O'Hare International Airport as she was about to fly on a one-way ticket to the PRC. A U.S. citizen, Jin was born in China and was carrying 1,300 electronic and paper documents from her former employer (Motorola), a European company's product catalog of military technology (written in English), as well as documents describing military telecommunications technology (written in Chinese). She was also carrying \$30,000 in cash, having only declared \$10,000.

Jin, who had joined Motorola in 1998, took a medical leave of absence in February 2006 but, between June and November of that year, negotiated with a Chinese company, Lemko, to develop communications software. On 26 February 2007, Jin returned to work at Motorola but omitted to mention

her new job in the PRC, and between 9:00 a.m. and 2:00 p.m., she downloaded more than 200 technical documents from Motorola's secure internal computer network and then, at about 12:15 p.m., had sent her resignation by e-mail to her manager. However, later the same evening, she returned to her office and downloaded additional documents and removed them.

Motorola filed a civil suit against Jin, Wu Xiaohua, Pan Shaowei (Wu's spouse), Sheng Xiaohong, and Bai Xuefeng, all former Motorola employees who had also taken up jobs with Lemko, alleging that they had tried to steal the technical specifications of the SC300 base transceiver station, Internet technology for cellular systems.

At a hearing in November 2011, Jin asked for a nonjury trial before a federal judge, declaring that she was only a bad employee and not a spy. *See also* INDUSTRIAL ESPIONAGE; TECHNOLOGY ACQUISITION; UNITED STATES OF AMERICA (USA).

JIN WUDAI. *See* CHIN, LARRY WU-TAI.

K

KAMISEYA. The U.S. **National Security Agency's (NSA)** largest overseas facility, Kamiseya in **Japan** occupied the tunnels of a wartime torpedo storage site and consisted of a large antenna field, airstrip, and underground accommodation for intercept operators and traffic analysts. Located some 500 miles off the coast of mainland China, Kamiseya was the NSA's window into the People's Republic of China and processed traffic collected from aircraft flown from both Japan and Taipei, Taiwan. Originally occupied by the **Armed Forces Security Agency** in 1949, the NSA withdrew in 1995. *See also AIRBORNE COLLECTION; CENTRAL INTELLIGENCE AGENCY (CIA); UNITED STATES OF AMERICA (USA).*

KANG SHENG. Born in 1898, Kang Sheng joined the **Chinese Communist Party (CCP)** in 1925 and, until he succumbed to cancer in 1975, spent his entire career in the Chinese security and intelligence apparatus and at one point headed the **Central Department of Social Affairs**. He was also closely connected to **Mao Zedong**'s wife Jiang Qing, whose mother had been in domestic service in his father's household, and as young revolutionaries, they may have gone through a form of marriage. He certainly accepted the role of her intelligence adviser and exercised a considerable, if sinister, influence over her. In 1958, Kang adopted **Yu Qiangsheng** and sponsored his entry into the **Ministry of Public Security**, an organization he would supervise as a member of the CCP's Political Bureau in 1966, following the death of **Li Kenong**. Today, because of his role in the Cultural Revolution, Kang is considered a nonentity and his name rarely mentioned in official circles; although, Chinese intelligence professionals recognize the part he played in building the country's intelligence structure.

KAO LIANG. Appointed secretary of the Chinese mission to the United Nations in 1983, Kao Liang had been secretary of the **Chinese Communist Party's** committee in Hungchao before joining the **New China News Agency (NCNA)**. He headed the NCNA bureau in New Delhi until it was closed down after accusations of political interference and, in 1961, opened

an office in Dar es Salaam as the NCNA's chief African correspondent. He was implicated in a coup plot in Zanzibar in 1964 and backed Sheik Babu, who later became that country's foreign minister. Kao was expelled from Mauritius and was thought to have served as an assistant to the legendary Colonel Kan Mei, the military attaché who had been active in Nepal, **Tibet**, and **India** before organizing guerrilla camps in the Congo.

KAO YEN MEN. Following an investigation that lasted six years conducted by the **Federal Bureau of Investigation (FBI)**, Kao Yen Men of Charlotte, North Carolina, was arrested on 3 December 1993 as a member of a spy ring that had attempted to obtain advanced naval weapons and related technology. The owner of several Chinese restaurants in the Charlotte area, Kao had been under FBI surveillance when he was seen meeting Chinese intelligence personnel who offered him up to \$2 million to obtain embargoed American technology, including the U.S. Navy's MK 48 Advanced Capability torpedo, the F404-GE-400 General Electric jet engines used to power F/A-18 fighters, and the fire-control radar for the F-16 fighter.

Kao subsequently paid \$24,000 to an undercover FBI agent for embargoed oscillators used in satellites and, on 22 December 1993, was ordered by a federal judge to be deported for overstaying his visa and for acts of espionage. A decision not to prosecute Kao was made by the Department of Justice to prevent the disclosure of counterintelligence sources and methods and to avoid offending the Chinese government. However, fearing Chinese reprisals, Kao requested deportation to **Hong Kong** and left behind his wife, who was a naturalized U.S. citizen, and their two children.

KASHMIR PRINCESS. On 11 April 1955, an Air India Constellation, the *Kashmir Princess*, crashed into the sea en route for Djakarta after a time bomb detonated in an engine cowling under the wing at an altitude of 18,000 feet. All 16 passengers, including members of a delegation from the **People's Republic of China** attending the Bandung Conference, were killed; although, the pilot and two of his crew escaped. The delegation, including a group of **New China News Agency** correspondents, was to have been headed by **Zhou Enlai**, the former premier, but he changed his plans at the last moment, perhaps having been tipped off to the attempt on his life.

An investigation conducted by the **Hong Kong Police Special Branch**, led by Assistant Superintendent “Ricky” Richardson and Charles Scobell, with considerable cooperation from the Chinese authorities, established that the aircraft had been sabotaged while under guard in **Hong Kong** and that the culprit was an engineer supposedly employed by the Hong Kong Engineering Maintenance Company and member of the **Kuomintang** intelligence service, who had concealed the device in an oily rag and then fled to **Taiwan** aboard a China Airlines plane. Although the Chinese claimed the incident had been orchestrated by the U.S. **Central Intelligence Agency**, the Special Branch investigation found nothing to support the allegation.

KAZAKHSTAN. The People’s Republic of China’s (PRC) former Soviet neighbor and, since 1996, a member of the **Shanghai Cooperation Organization**, Kazakhstan has become the focus of considerable investment by Beijing in an apparent effort to diversify the country’s reliance on foreign energy imported by sea and, therefore, a significant intelligence collection target. Independent since 1991, Kazakhstan is also the subject of interest from the **Ministry of State Security** because of the large number of **Uighur** refugees who have sought asylum there.

As the PRC’s principal energy partner in Central Asia, Kazakhstan’s state oil company, KazMunaiGaz, has received financial support from the China National Petroleum Corporation (CNPC) in exchange for 15 percent of the country’s total oil production, which is now channeled east to **Xinjiang**. The CNPC has also partnered KazMunaiGaz to build a \$3 billion, 3,000-kilometer oil pipeline from the Caspian Sea to Xinjiang and the \$7.3 billion, 7,000-kilometer Central Asia Gas Pipeline from Turkmenistan. Other local Chinese energy investments include large financial stakes taken by the Export-Import Bank of China in the Aktobemunaigaz Company, PetroKazakhstan, and MangistauMunaiGaz.

In addition, the China Guangdong Nuclear Power Company entered a joint venture with the Kazakh National Nuclear Company in April 2009 to develop the Irkol uranium mine, thought to be capable of producing 250 tons of yellowcake a year. To facilitate transport, Beijing has also committed to establishing a “New Silk Road” through northwestern Kazakhstan to Xinjiang and to backing the Kazakhstan Development Bank’s loan to buy Chinese railway rolling stock.

KENYA. In June 1965, the Kenya Special Branch uncovered a Chinese plot to infiltrate agents and weapons into the country, apparently with the intention of mounting a coup to replace Jomo Kenyatta with his vice president, Jaramogi Oginga Odinga, whose house had been bugged. A member of the People's Republic of China's embassy was expelled, and the following year, Odinga was replaced. Kenyatta was so impressed by the efficiency of his Special Branch, which had been trained and mentored by British MI5 personnel, that he asked MI5 to establish a local security apparatus, the National Security Executive, headed by an MI5 officer.

KEYSER, DONALD W. The 59-year-old deputy chief of the U.S. State Department's East Asia bureau was arrested in September 2004 when he admitted having become infatuated with 37-year-old Cheng Nian-Tzu, known as Isabelle Cheng, a Taiwanese intelligence officer based at **Taiwan**'s de facto embassy in Washington DC. As many as 3,659 classified documents were recovered from his home, and at his trial in October 2007, Keyser pleaded guilty to three felony charges and was sentenced to a year and a day's imprisonment in a federal penitentiary and a \$25,000 fine.

The couple had become intimate in 2002 when President Jiang of the People's Republic of China had visited the **United States**, and Cheng had asked her lover for information. He had replied in an e-mail, "Your wish is my command." Later, in a wiretapped telephone conversation, after the pair had been watched by a **Federal Bureau of Investigation** special surveillance group unit making love in a car, he had remarked, "The food was good. The wine was good. The champagne was good, and you were good." When Keyser was arrested, Cheng promptly returned to Taiwan.

Fluent in Mandarin, with his fourth wife working at the **Central Intelligence Agency (CIA)**, Keyser had been educated at the University of Maryland and had spent two years at the Stanford Inter-University Center in Taiwan. Keyser's wife, who was also found to have removed classified documents from the CIA and knew that her husband had been bringing home material from the State Department, was transferred to the Office of the Director of National Intelligence, John Negroponte. *See also NATIONAL SECURITY BUREAU (NSB).*

KHAN, AMANULLAH. On 23 July 2003, arrest warrants were served on Amanullah Khan, a 54-year-old naturalized American of Pakistani origin who used the alias "Wali Merchant." Two days earlier, U.S. Immigration

and Customs Enforcement (ICE) agents had arrested one of his associates, Ziad Jamil Gammoh, known as “Al Gammoh,” a 53-year-old naturalized American, originally from Jordan. Both men had been indicted for attempting to illegally export military components for F-4 and F-5 fighters to China, and they were also charged with conspiring to export parts for the F-14 Tomcat, AH-1J attack helicopter, and Hawk surface-to-air missiles.

Together Khan and Gammoh had run United Aircraft and Electronics, an unincorporated business in Anaheim, California, that purchased and resold aerospace, military, and defense aircraft parts to various foreign commercial and government buyers. However, during an ICE investigation, agents created a fictitious company, Sino-American Aviation Supply, which purported to be based in Shenyang, China, and negotiated to buy restricted items and have them shipped to China without the required export licenses.

On 7 November 2005, Gammoh was sentenced to 78 months’ imprisonment, and on November 28, Khan was sentenced to 188 months’ imprisonment. *See also* INDUSTRIAL ESPIONAGE; TECHNOLOGY ACQUISITION; UNITED STATES OF AMERICA (USA).

KIM SOO-IM. On 18 June 1950, Kim Soo-im was executed at Kimpo Airport, Seoul, having been convicted of espionage for the People’s Republic of China (PRC). Originally trained in the dental clinic of a missionary college, she had been recruited as a spy by her lover, the Communist Lee Kung Kook, in 1942, and after the war, she had been employed as a receptionist at the Banto Hotel, which was used by the U.S. Army as a military headquarters. While working on the switchboard, Kim listened in to many of the telephone calls and relayed this intelligence, and other information she picked up from lonely soldiers, to the North Koreans. Later, she would be transferred to a secretarial post in the U.S. Provost Marshal’s office, where she had access to counterintelligence material. By the time the ceasefire had been agreed, Kim had proved very successful and had established a photographic studio in the basement of her home so she could process the secrets she had stolen. Her arrest came when she turned her attention to spying on the government headed by President Syngman Rhee, who was elected in August 1948. *See also* SOUTH KOREA; UNITED STATES OF AMERICA (USA).

KINDRED SPIRIT. The Federal Bureau of Investigation used the codename KINDRED SPIRIT for the investigation into Wen Ho Lee.

KOREAN WAR. The intervention by the People's Republic of China's (PRC) in the Korean War in October 1950 had been anticipated by the U.S. **Armed Forces Security Agency**, which had monitored **People's Liberation Army (PLA)** movements from **Shanghai** toward Manchuria from July, but even after elements of the 4th Army crossed the Yalu River and engaged **South Korea**'s forces, leaving some captives for interrogation, there was a widespread belief that the PRC would not intervene. This view was especially prevalent among General Douglas MacArthur's G-2 staff, headed by his director of intelligence, Charles Willoughby, who asserted that the prisoners of war were simply isolated Chinese volunteers and did not represent proof that PLA divisions had joined the war. That view changed on 25 November, when Chinese troops overwhelmed completely the U.S. Eighth Army, reversing MacArthur's advance and transforming it into a rout before the front stabilized around Seoul.

After the war had started, the CIA's Office of Research and Estimates (ORE) remained undecided on the issue of Chinese intervention and, between 10 July and 9 November 1950, produced 10 Intelligence Memorandums for the Directors of Central Intelligence, Admiral Roscoe Hillenkoetter and his successor General Walter Bedell Smith. The CIA's reporting came primarily from radio monitoring by the Foreign Broadcast Information Service (FBIS), press reports from Hong Kong, Tokyo, Bangkok, and Shanghai of Chinese troop movements, plus some CIA human sources managed by the Office of Special Operations (OSO) bulletins. The CIA's internal account of the Korean War records that among OSO intelligence reports were some 554 reports disseminated during the critical period from July through November 1950. According to the OSO's summary in April 1951, "A considerable number of reports derived from Chinese sources . . . trace the movement of Chinese Communist military forces northwards into Manchuria and towards the Korean border, indicating units, equipment, and other order of battle details." Also included in OSO's listing of reports are seven "indications based on Chinese Communist commercial activities in Hong King . . . and thirteen indications of CHICOM or CHICOM-USSR conferences and policy statement relating to war preparations."

The first of the series of relevant ORE Intelligence Memorandum to raise the issue of Chinese intervention was dated 8 July 1950 and suggested that the Kremlin might order a covert or even overt Chinese participation in the

war. On 19 July, the ORE's regular *Review of the World Situation* remarked that, although the PRC had the capability to intervene, it probably would not do so unless directed to do so by the Soviets. On 16 August, ORE warned of the PRC's military capacity and, on 1 September, predicted that "the stage has been set for some form of Chinese Communist intervention or participation in the Korean War" and that "some form of armed assistance to the North Koreans appears imminent." A week later, on 8 September, an Intelligence Memorandum entitled *Probability of Direct Chinese Intervention Korea* reported that, although there was no direct evidence, "limited covert Chinese Communist assistance to the **North Korean** invaders, including the provision of individual soldiers, is assumed to be in progress at present," noting the presence of an estimated 400,000 Communist troops in Manchuria and an "increasing Chinese Communist build-up of military strength in Manchuria, coupled with the known potential in that area, make it clear that intervention in Korea is well within immediate Chinese Communist capabilities. Moreover, recent Chinese Communist accusations regarding U.S. 'aggression' and 'violation of the Manchurian border' may be stage-setting for an imminent overt move."

The ORE *Review of the World Situation*, dated 20 September, speculated that the most likely Chinese or Soviet intervention, as the North Korean forces crumbled following the amphibious landings at Inchon, would take the form of integrating Chinese Communist "volunteers" into regular North Korean units. The *Review* also warned that the forces in Manchuria "could enter the battle and materially change its course at any time." However, on 12 October 1950, ORE 58-50, headed *Threat of Full Chinese Intervention in Korea*, under Bedell Smith's signature, was handed to President Harry S. Truman as he flew to Wake Island to confront General MacArthur. The document observed, "Despite statements by Chou Enlai, troop movements to Manchuria, and propaganda charges of atrocities and border violations . . . there are no convincing indications of an actual Chinese Communist intention to resort to full-scale intervention in Korea," concluding that "such action is not probable in 1950" and asserting "from a military standpoint, the most favorable time for intervention in Korea had passed." Much the same opinion was expressed in the next *Review*, dated 18 October.

In Korea itself, the position was very different. From 12 October, some 30,000 Chinese troops had crossed the Yalu River, and by the end of the

month, another 150,000 had entered Korea. They were committed to combat for the first time on 25 October, against South Korean and American forces, and around 25 were captured. Based on those interrogations, DCI Bedell Smith initially suggested that the Chinese had been deployed to protect Chinese hydroelectric installations along the Yalu River, but on 1 November, he informed Truman,

It has been clearly established that Chinese troops are opposing UN forces. Present field estimates are that between 15,000 to 20,000 Chinese Communist troops organized into task force units are operating in North Korea while their parent units remain in Manchuria.

A week later, on 8 November, National Intelligence Estimate (NIE) 2 estimated the number of Chinese troops in Korea at 40,000 and reported that they were engaging UN troops up to 100 miles south of the Yalu. Troop numbers in Manchuria were now estimated at 700,000, of which up to 350,000 could be available “within 30 to 60 days for sustained ground operations in Korea.” In reality, the PLA had infiltrated 300,000 soldiers over the Yalu in support of the remaining beleaguered 65,000 North Koreans.

On 24 November, as MacArthur continued to express confidence in his offensive, NIE 2/1 was circulated, entitled *Chinese Communist Intervention in Korea*, which observed that “available evidence is not conclusive whether or not the Chinese Communists are as yet committed to a full-scale offensive effort.” However, all doubts evaporated on the following day when the PLA counterattacked with 30 divisions, at a time when there were only 12 divisions on the order-of-battle charts at MacArthur’s headquarters in Tokyo, prompting Truman to say, on 28 November, “The Chinese have come in with both feet” and MacArthur to acknowledge, “We now face an entirely different war.”

Both men were right. In the face of this unexpected onslaught, the U.S. 7th Infantry Division sustained appalling losses, the 2nd Infantry Division suffered one-third casualties and had virtually all its equipment destroyed, and at one moment, the entire 1st Marine Division was almost encircled and in danger of decimation. Over the next two months, the UN forces retreated south 200 miles to Pusan.

Chinese preparations for the counterattack of 25 November had gone undetected because the U.S. 8th Army had come to rely on the interrogation of prisoners of war (PoW) as the best source of enemy intelligence and had acquired a pool of some 100 Chinese prisoners to question. However, there

was a lack of suitable interpreters, and the first captives turned out to be turned-Nationalists who were terrified of the PLA and, when passed up to Division or Corps levels, reluctant to make any disclosures. Furthermore, some had been primed with bogus details of the PLA's order of battle, and it would later become clear that the Chinese had kept their most experienced, battle-hardened Communist troops for the second, massive offensive.

During this period, from the North Korean invasion on 25 June, MacArthur's Far East Command compiled a secret Daily Intelligence Summary, up to 30 pages long, drawn from PoW interrogations, signals intelligence summaries, aerial reconnaissance, foreign language newspaper articles, and radio bulletins and from two other sources of espionage. One was a network of agents established and run by the legendary John Singlaub, a World War II Office of Strategic Services veteran who specialized in recruiting former Korean PoWs who had fought with the Japanese and whom he trained for infiltration back into Manchuria. Singlaub's organization was charged with collecting information about Communist North Korean intentions, and his reporting was considered reliable. Less so was Willoughby's secret Korean Liaison Office in Seoul, which purported to be in contact with 16 agents in the North; although, there was some skepticism about their loyalty.

Far East Command also received consular and other reports from the **Kuomintang (KMT)** in **Taiwan** and **Hong Kong**, who provided good warnings, but they had been discounted because of their perceived political motives for exaggerating the PRC threat. In addition, there was some evidence that the KMT occasionally recycled information that it had originally acquired from MacArthur's headquarters. Nevertheless, although the U.S. Far East Command consistently underestimated the number of PLA troops in Korea, despite escalating the figures from 70,000 on 25 October to nearly 210,000 five days later, it did track the forces in Manchuria quite well, reporting 116,000 in July, 217,000 in early August, to 415,000 and perhaps 463,000 by early November.

The Air Force Security Service (AFSS) also ran an intercept program, codenamed **YOKES**, monitoring the enemy's ground control communications and radar, based at Pyongtaek with advance facilities at Kimpo, near Seoul, and on Pyong-Yong-do Island. Here AFSS personnel listened into Korean, Chinese, and Russian channels, and as the demand for Chinese linguists grew, the AFSS enlisted General Hirota, formerly the

head of Japan's wartime signals intelligence agency, to provide a team of 12 Chinese-speaking Japanese to augment a group of school-trained American Chinese linguists who were installed at the Chosen Christian College in Seoul (later Yonsei University). YOKE proved very successful and was in part responsible for the impressive performance of the F-86 Sabre, equipped with a radar gunsight, against the MiG-15s, which were less maneuverable but boasted a higher ceiling and firepower. On one memorable occasion, 15 enemy jet fighters were shot down by F-86s without loss, having been vectored to their targets by ground controllers relying on tactical intercepts rather than early-warning radar.

The AFSS's ground-control intercept program proved so successful that there were leaks, with even the media reporting on its activities, causing Detachment 3 of the 1st RSM to suspend operations for a few days in October 1951 to demonstrate to the U.S. 5th Air Force what was at stake. Having gained the attention of senior officers, new communications security measures were introduced to protect the source.

In early 1952, a Chinese switch toward the use of VHF equipment threatened to terminate the AFSS's ground control interception, but a new facility on Cho-Do Island, off Wonsan, put the antennae in range and restored the quality of communications intelligence available to the United Nations forces. According to a **Central Intelligence Agency** review, "Communications Intelligence remained the principal source of intelligence for threat until 27 July 1953, when the armistice was signed at Panmunjom."

American signals intelligence airborne collection operations were flown from November 1950 by the RB-50B, a variant of the RB-29 Superfortress, by the 91st Strategic Reconnaissance Wing (SRW) from Yokota, **Japan**. They began monitoring the North Korean air defense radars, which was an easy task as they were of American origin, having been supplied to the Soviets during World War II. However, the following year, improved RUS-2 early warning radars were detected, followed by the discovery of SON-2 fire-control systems found near Pyongyang. Each time a new system was identified by analysts, the appropriate countermeasures were developed and aircraft fitted with jammers. By the end of the conflict, the 91st SRW had grown to 400 aircraft, including a detachment of RB-45C Tornados from Barksdale Air Force Base in Louisiana.

It was not until the defection of a North Korean MiG-15 pilot, Lieutenant No Kum-Sok, on 21 September 1953, that detailed information about Chinese air operations in Korea became available. Having flown his aircraft from Dandong to Kimpo, he revealed that the ill-equipped **People's Liberation Army Air Force (PLAAF)** had been strengthened in 1950 by two Istrebitel'naia Aviatsonnaia Diviziaa (IAD or Fighter Aviation Regiments). The 106th IAD had been deployed to defend Shanghai against Nationalist air raids from Taiwan, while General Ivan Belov's 151st Guards IAD had been sent in July 1950 to train Chinese pilots and protect the 13th Chinese People's Volunteer Army north of the Yalu River. Hitherto, the PLAAF had acquired a few Soviet-supplied MiG-9 and MiG-15 jet fighters, but it had not been in any position to assist the North Korean Air Force, which had been decimated by American bombers. However, in November 1950, vastly superior MiG-15s had appeared over the Yalu River and proved highly effective until the hasty introduction of F-86 Sabres a month later. Thereafter, two rotating Soviet IADs, initially the 324th and the 303rd, consisting of 30 MiG-15Bs in each, flying from Shenyang, and then from Myaogou, in PLAAF or North Korean livery, with the pilots wearing Chinese uniforms, engaged the American planes but only well behind the frontline and under strict instructions not to fall into enemy hands.

By the end of hostilities, the Soviets had some 13,000 combat personnel in China, with a similar number of support staff centered on a corps headquarters at Antung. Almost all were withdrawn at the end of February 1952, leaving behind only a few technical elements of the 17th Fighter Aviation Regiment. Altogether, the Soviets lost an estimated 278 aircraft and 127 pilots.

Both the Soviets and the Chinese were intensely interested in the F-86, and when one of the fighters was shot down by a Soviet MiG on 6 November 1951, the airframe, number 1319, was captured, even though the pilot was rescued. It was taken to the Andung airbase for examination and later was shipped to Moscow. Six months later, in May 1952, Colonel Bud Mahurin was shot down, and his Sabre was also captured relatively intact. *See also* AIRBORNE COLLECTION; LOVELL, JOHN S.; SOVIET UNION; UNITED STATES OF AMERICA (USA).

KOVACS, WILLIAM. On 4 October 2006, William Kovacs, the owner and president of Elatec Technology Corporation in Massachusetts, was sentenced in the District of Columbia to 12 months' and a day

imprisonment, 3 years' supervised release, and 300 hours of community service for illegally exporting a hot press industrial furnace to a research institute in China that was described as being affiliated with the country's aerospace and missile programs. Kovacs and Elatec had been charged in November 2003 and had pleaded guilty on 28 May 2004.

Another defendant, Stephen Midgley, separately pleaded guilty, on 28 January 2005, to making false statements in export documents that the furnace did not require an export license when the goods had been shipped to China. Midgley was sentenced to a one-year probation and 120 hours community service and fined \$1,500. In addition, the Bureau of Industry and Security gave Midgley a \$5,000 administrative penalty. *See also* INDUSTRIAL ESPIONAGE; TECHNOLOGY ACQUISITION; UNITED STATES OF AMERICA (USA).

KUCZYNSKI, URSULA. Known by her married name of Ursula Beurton, her nom de guerre of Ruth Werner, and her GRU codename of SONIA, was an exceptionally successful case officer taught her craft by **Richard Sorge** in **Shanghai**. Born into a family in Berlin that was to become well known for its commitment to radical socialism, Ursula's father moved to England to take up an academic appointment in Oxford in 1933 as the Nazis took power. Her sister, Brigitte, was recruited as an agent by the Soviet GRU, and her brother, Jurgen, was to lead the Kommunistische Partei Deutschlands (KPD) in exile. Ursula worked in a bookshop selling "progressive literature" and briefly visited New York to do relief work among the homeless. In 1929, she married an architect, Rolf Hamburger, and they set up a home together in Shanghai, where she fell under the influence of other Soviet agents, among them **Agnes Smedley**, and campaigned for the release of **Hilaire Noulens**.

Already committed to the Communist cause, Ursula was recruited into the GRU by Sorge; although, at that early stage, she was uncertain of the exact nature of the organization. "Only two years later did I know that it operated under the intelligence department of the Red Army General Staff. It made no difference to me. I knew that my activities served the comrades of the country in which I lived."

In February 1931, their son, Michael, was born, but this event did not cement their marriage, which was under strain, primarily because of political differences. "I could not talk to him about the people who were closest to me or the work on which my life was centered." Hamburger was

deliberately excluded from Ursula's clandestine activities and had no idea that Sorge used their house to store secret information. Only later did he convert to Communism, by which time, Ursula had left him. In the meantime, she had spent six months in Moscow undergoing a GRU training course, returning to meet Rolf in Prague and return to China via Trieste in April 1934. They settled in Mukden and, in June 1935, moved to Peking, where she became pregnant by Ernst, a GRU agent with whom she had trained in Moscow.

Ursula returned to Moscow with Michael late in 1935, and after a brief stopover, continued her journey via Leningrad to London, where she was reunited with her family. She then moved with Rolf to Warsaw, where Janina was born in April 1936, but after a mission to Danzig, she was recalled to Moscow to receive further training, the Order of the Red Banner, and a new assignment, in Switzerland.

In October 1938, Ursula was living in the village of Caux, above Montreux, with her two children, supervising a network of agents, which included members of the International Labour Organization of the League of Nations in Geneva and the I. G. Farben plant in Frankfurt. However, her passport was false, and in 1939, she divorced Rolf, who had been ordered back to China, and married a young English veteran of the Spanish Civil War, Len Beurton, in order to acquire British citizenship.

In December 1940, Ursula made her way to England, via Barcelona, Madrid, and Lisbon, with her children and rented a house in Oxford, where, in late 1942, she was joined briefly by Beurton before he was called up for service in the Coldstream Guards. While in England, Ursula acted as a GRU case officer for Melita Norwood, who supplied atomic secrets from the British Non-Ferrous Metals Association, and for Klaus Fuchs, a role that led to MI5's interest in her in August 1947. Although on the one occasion she was interviewed she denied any connection with espionage, she fled to East **Germany** in February 1950, the day before Fuchs appeared at the Old Bailey. In her retirement, she lived in East Berlin, an unapologetic Communist, devoted to Beurton and their son Peter, who was born in September 1943. Her biography was published in 1977. She died in 2000, soon after the loss of her husband. *See also* SOVIET UNION.

KUOMINTANG (KMT). Created as a nationalist political movement in 1912, the KMT received support in 1923 from the Comintern, but in 1927, the Communists were purged by Generalissimo **Chiang Kai-shek** in

anticipation of his capture of Peking the following year. Following the Japanese invasion of 1937, the KMT withdrew to Chungking, but several different Nationalist intelligence organizations competed against each other. The largest was the Resources Investigation Institute (RII), headed by General Wang Ping-sheng, which operated under the umbrella of the Institute for International Studies. The RII operated both domestically and abroad, with George Yeh representing the organization in Delhi and liaising with the regional British **Secret Intelligence Service** director, Leo Steveni.

The Chinese Civil War continued after the Japanese surrender in 1945, and the KMT was forced to retreat to **Taiwan** in 1949, where the Republic of China (ROC) was established, in a permanent conflict with the People's Republic of China (PRC), which continues to this day. During the Cold War, until President Richard Nixon's visit to Beijing in 1972, the ROC received considerable intelligence and technical support from the **Central Intelligence Agency (CIA)**, with successive CIA station chiefs in Taipei exercising considerable influence both locally and over the CIA's Far East Division. One such chief, Dr. **Ray Cline**, would later be promoted to the CIA's Deputy Director for Intelligence.

In 1955, the establishment of the **National Security Bureau** absorbed the functions of the KMT's Social Work Committee and the Overseas Maneuvers Committee. *See also* INTER-SERVICES LIAISON DEPARTMENT (ISLD); JAPAN; STENNES, WALTER.

KYRGYZSTAN. The People's Republic of China's (PRC) former Soviet neighbor, since 1991 independent and since 1996 a member of the **Shanghai Cooperation Organization (SCO)**, Kyrgyzstan has received substantial infrastructure investment from Beijing, including a commitment by the China Road and Bridge Corporation to rebuild an 80-kilometer stretch of the strategically important Irkeshtam-Osh highway and to construct a new \$2 billion railway, which would connect the country's coalmines to Kashgar. One of the **Ministry of State Security's (MSS)** role in Kyrgyzstan is to ensure the protection of these key assets. The country's capital, Bishkek, is considered a convenient and safe environment by both the MSS and the Russian Sluzhba Vnezhney Razvedki (SVR) in which to conduct intelligence operations. Because of years of anti-Maoist propaganda in the **Soviet Union**, MSS personnel often adopted a "false flag" and pretended to be Kyrghs or Kazakhs when attempting to recruit Russians.

Economically undeveloped, Kyrgyzstan enjoys considerable strategic significance and, in spite of pressure from the SCO, accommodates a U.S. Air Force base at Manas, which is used to support operations in Afghanistan. Now firmly within the PRC's sphere of influence and a target for intelligence collection by both the PRC and the **United States**, Kyrgyzstan was the PRC's first partner in bilateral military maneuvers on the border, codenamed EXERCISE 01, in 2002, involving hundreds of troops from both sides.

L

LAI TEK. The veteran secretary-general of the Malayan Communist Party (MCP), who was elected to the post in April 1939 in Singapore, Lai Tek came from Saigon where, as a **Comintern** agent of Chinese origin, he had acted as an informer for the local French Sécurité. Recruited as a mole by the Malaya Special Branch in 1934, he was run successfully as a source until March 1947, when he was exposed by his successor, **Chin Peng**, traced to Bangkok, and strangled. Always backed by Beijing, Lai Tek was handled by John Davis, a Chinese-speaking Malaya Special Branch officer who transferred to the **Inter-Services Liaison Department** at the outbreak of war. Lai Tek's complicated life, which included leadership of the wartime Communist resistance under the nom de guerre Hang Cheng and work as a double agent against the Japanese Kempeitai, came to an end after he had looted the MCP's funds and fled to **Hong Kong**.

LAM, WAI LIM WILLIAM. In October 2006, Wai Lim William Lam, a 32-year-old from **Hong Kong**, was arrested and charged with attempting to smuggle goods from the **United States** to Hong Kong. Lam had purchased a night-vision rifle scope, two submersible night-vision monoculars, a night-vision sniper scope, and a combat optical scope in Stamford, Connecticut. Two months later, Lam pleaded guilty to the charge. *See also TECHNOLOGY ACQUISITION.*

LAU, HING SHING. On 3 June 2009, Hing Shing Lau, alias Victor Lau, a **Hong Kong** resident, was arrested at the Toronto International Airport on a provisional arrest warrant issued in the **United States**. Lau was found to be carrying \$30,000 in cash, thought to have been the final payment for 12 infrared thermal imaging cameras purchased from a firm in Dayton, Ohio. The cameras were intended for export to Hong Kong and China, and Lau had originally contacted the company in the hope of exporting cameras manufactured in Texas. On three occasions, he transferred a total of \$39,514 from Hong Kong as partial payment for the cameras, and, according to the prosecution, Lau continued to phone and e-mail his business contact to complete the purchase, before finally arranging to take delivery of the cameras in Toronto. The cameras had a wide variety of civilian and military

applications, including use in unmanned vehicles, weapon sights, and security and surveillance products. Lau was extradited to Ohio for trial, charged with two counts of violating export control laws and four counts of money laundering. *See also* TECHNOLOGY ACQUISITION.

LAU YVET-SANG. In November 1966, a New China News Agency editor, Lau Yvet-sang, defected from Hong Kong to Taiwan.

LEE, DAVID YEN. In May 2009, a 52-year-old businessman living in Arlington Heights, Illinois, was arrested by the Federal Bureau of Investigation (FBI) and charged with having stolen proprietary information belonging to his former employer, the Valspar Corporation of Wheeling, Illinois, where he had been technical director of new product development until a couple of months earlier. Lee, a naturalized U.S. citizen, had resigned soon after returning from a visit to the People's Republic of China, and examination of his laptop revealed that it contained a data-copying program and that he had downloaded 44 gigabytes of Valspar's trade secrets, with a value of between \$7 million and \$20 million, onto a USB drive without authorization. Before leaving Valspar, Lee had joined Nippon Paint in Shanghai. *See also* INDUSTRIAL ESPIONAGE; TECHNOLOGY ACQUISITION.

LEE, DUNCAN C. A descendant of General Robert E. Lee, Duncan Lee was a Soviet spy codenamed KOCH who supplied information from inside the Office of Strategic Services (OSS) about developments in China. Born in 1914, in China, where he lived for 13 years with his missionary parents, and fluent in Mandarin, Lee graduated from the University of Virginia and then studied as a Rhodes Scholar at Oxford, where he met his Scottish wife, Ishbel. He later attended Yale Law School, where he and his wife joined the Communist Party of the United States of America, and graduated in 1939, to join Donovan Leisure, the New York law firm headed by General William ("Wild Bill") Donovan. However, three months later, when Donovan was appointed President Franklin D. Roosevelt's coordinator of information, Lee joined the organization as his assistant, with the U.S. Army rank of captain, and continued in the same role when the OSS was created.

He then moved to Washington DC, where he stayed briefly with Mary Price, a Soviet spy codenamed DIR, to whom he had been introduced by

her sister **Mildred Price**, the executive director of the **China Aid Council**. Lee had met her in the spring of 1942 through his membership of the **Institute for Pacific Relations** and began an illicit affair with Mary. However, when Ishbel learned of the relationship in the autumn of 1943, Mary broke it off, fearing that Lee's wife, who knew of his espionage, would compromise his espionage.

By May 1943, Lee had been transferred to OSS's legal department but continued to have access to classified information and reported on **Chiang Kai-shek**'s intention to hold a meeting with Communist Party leaders in Siam to discuss relations with the **Kuomintang**. These reports were highly valued in Moscow. At the end of June 1943, Lee left the **United States** on a fact-finding tour of the OSS's bases in Asia for General Donovan and did not return until early October. He reached Chungking but nearly failed to complete the return journey when he and his two companions, **John S. Service** of the U.S. embassy and the war correspondent Eric Severeid, were forced, while en route from Kunming in a C-46, to parachute into the Naga Hills and make an epic journey across the Burmese forest to India. No sooner had they bailed out of their apparently stricken aircraft than the engines recovered, and the pilot landed safely at Chabua.

When Lee eventually returned home, much emaciated by his experience, he resumed his espionage, but, according to Elizabeth Bentley's evidence to the **Federal Bureau of Investigation (FBI)**, "Although I succeeded in getting from him more than Mary [Price], he almost always gave it to me orally and rarely would he give me a document, although under pressure he would hand over scraps of paper on which he had written down important data." She revealed that she had held a rendezvous with Lee outside his house every two weeks and then had spent up to three hours debriefing him, memorizing his information. When Lee had visited New York on business, he had also routinely called her from a payphone and arranged other meetings, at which he passed on secret data. When the NKVD *rezidentura* in New York suggested replacing her as Lee's contact, she objected, noting his anti-Semitism and pointing out that it was inappropriate to appoint a Jew as her successor.

Within a few days of his arrival in Washington, Lee had told his contact that an OSS representative in China had recruited a small group of Japanese Communists who he intended to infiltrate back into **Japan**. He also reported that the OSS also intended to use the same strategy with some

Korean Communists as the Japanese were importing Korean labor. A month later, he disclosed that the OSS had reached an agreement with the Kuomintang on conducting joint sabotage operations against the Japanese, and Moscow assessed this report as accurate, noting that the British had been doing the same since 1942.

Identified as a spy by Bentley and exposed by numerous references to KOCH in the VENONA traffic, Lee was summoned to appear as a witness by the House Committee on Un-American Activities, to whom he denied any involvement with espionage. Instead of suing Bentley, he went into a private law practice in Washington DC, while the FBI kept him under discreet surveillance and recommended his dismissal from the U.S. Army Reserve, in which he held the rank of lieutenant colonel. Lee lost his appeal and then left the country to represent the American International Group in Bermuda. He later moved with his second wife, a Canadian, to Toronto, where he died in 1988. *See also AMERASIA; SOVIET UNION.*

LEE, PETER. A naturalized American from **Taiwan**, Dr. Peter Lee had worked as a laser expert at Los Alamos and Lawrence Livermore before being employed by the defense contractor TRW Inc. on a classified antisubmarine project for the U.S. Navy. In January 1985, Lee visited Beijing and had been invited to lecture at the People's Republic of China's (PRC) Institute of Applied Physics and Computational Mathematics, the branch of the **China Academy of Engineering Physics** where the country's nuclear weapons designers were concentrated.

Codenamed **ROYAL TOURIST** by the **Federal Bureau of Investigation**, Peter Lee had been a friend of **Wen Ho Lee** at Los Alamos, and under interrogation, he admitted that he had met Chen Nengkuan, the Yale-educated leader of the **Chinese nuclear weapons** program and head of the **China Academy of Engineering Physics**, in his hotel room. Lee had made several trips to Beijing, and in a plea bargain with the prosecution in March 1998 (in return for a fine of \$20,000 and a year in a halfway house), Lee admitted to having compromised classified information. Specifically, Lee had passed information relating to the U.S. Navy's Radar Ocean Imaging project, a submarine detection program conducted jointly with **Great Britain**. Because of the sensitivity of the research, a plea bargain was arranged to avoid public disclosure of the details. **James Lilley**, formerly a U.S. ambassador to the PRC and **Central Intelligence Agency** station chief in Beijing, commented in 2004, "Peter Lee's case was they had

this guy giving this very sensitive data to the Chinese on underwater detection of submarines. They ran into this case where the navy would not allow a court case against him because of the data. So they had a bargain plea, and he got off basically. For stealing very high-level stuff, he gets probably, what, a couple of months in a halfway house.”

Peter Lee was only slightly connected to the FBI’s investigation of Wen Ho Lee, codenamed **KINDRED SPIRIT**, which it inherited from the original review of the PRC’s acquisition of the W-88 nuclear warhead technology. *See also* OVERSEAS CHINESE.

LEE, SAM CHING SHENG. On 30 December 2008, Sam Ching Sheng Lee, aged 63 and a native of China, and his nephew, Charles Yu Hsu Lee, aged 31 of **Taiwan**, were arrested on charges relating to a conspiracy to obtain and illegally export sensitive technology to the People’s Republic of China (PRC). The part-owner and chief operations manager of the Multimillion Business Associate Corporation in Hacienda Heights, California, Lee was charged with assisting unnamed people in the PRC to illegally procure export-controlled thermal-imaging cameras in violation of the International Emergency Economic Powers Act and Export Administration Regulations. The prosecution alleged that between April 2002 and July 2007, and after they had been made aware of the export restrictions, the Lees exported 10 cameras. Charles Lee purchased them from suppliers for about \$9,500 each and gave them to his uncle for shipment to China. One of the recipients was identified as an employee of a company in **Shanghai** engaged in developing infrared technology. *See also* OVERSEAS CHINESE; TECHNOLOGY ACQUISITION.

LEE LAN. *See* GE YUEFEI.

LE-FANG WEI. *See* WEI LEFANG.

LEUNG, KATRINA. *See* PARLOR MAID.

LIANG XIUWEN. In February 2003, 34-year-old Liang Xiuwen, known as Jennifer Liang, was arrested with her 48-year-old husband, Zhuang Jinghua, and charged with conspiring to illegally export to **China** F-14 fighter parts and components for the Hawk, TOW, and AIM-9 Sidewinder missiles systems. Together, they owned Maytome International in Thousand Oaks, California, and on 15 April 2005, Liang was sentenced to 30 months’

imprisonment and fined \$6,000 after her husband had been sentenced to 30 months' imprisonment. *See also TECHNOLOGY ACQUISITION; UNITED STATES OF AMERICA (USA).*

LIAO HO-SHU. In January 1969, the 42-year-old acting Chinese chargé d'affaires in the Netherlands, Liao Ho-shu, turned up at the Dutch police headquarters wearing only pajamas and a raincoat and requested political asylum. A few days later, he was flown to the **United States** for debriefing by the **Central Intelligence Agency**.

Three years earlier, in July 1966, Liao had been involved in the abduction and death of a 42-year-old engineer, Hsu Tzu-tsai, who had been forcibly removed from his bed in the Red Cross Hospital after he had been found badly injured in the street, allegedly following a fall from a window. His removal from the X-ray department, where his skull fracture and spinal injuries were undergoing treatment, had been orchestrated by Liao. However, according to a bulletin released by the **New China News Agency**, Hsu had been induced by a "secret U.S. agent" to desert and betray his country. The Chinese chargé, Li Enzhou, revealed that Hsu had died of his injuries after he had been returned to the Chinese embassy, so the Dutch police surrounded the building, demanding access to the eight other engineers in Hsu's delegation to find out what had really happened. The Chinese retaliated by announcing the expulsion of the Dutch chargé in Beijing but refused to allow him an exit permit until the Chinese engineers had been released.

This diplomatic standoff lasted for five months until the end of the year when a compromise was reached and the Dutch police were allowed into the surrounded premises to conduct an inconclusive investigation.

LI CHU-SHENG. The long-serving deputy director of the **New China News Agency** in **Hong Kong**, Li Chu-sheng was widely regarded during the Cold War as the senior Chinese intelligence officer in the colony and had previously served as the Chinese chargé d'affaires in Djakarta, Indonesia.

LI FENGZHI. In 2004, Li Fengzhi, a 36-year-old PhD graduate of the **Beijing Institute of International Relations**, where he had been taught by the principal, Liu Hui, and a member of the **Ministry of State Security (MSS)**, defected to the **United States**. He had joined the **Chinese**

Communist Party (CCP) in 1995; although, he was sympathetic to the pro-democracy demonstrators and was recruited originally as a technical support officer at the MSS office, known as Unit 8475, in Liaoning Province.

The MSS sent Li to Denver to study for a PhD in politics and diplomatic philosophy, but while there, he applied for political asylum, a request that was resisted by the U.S. government. Federal prosecutors initially claimed that Li was not really an MSS officer but merely an academic who was attempting to pass himself off as one in an effort to remain in the United States. After a federal judge ruled in favor of Li, the prosecutors submitted an appeal, asserting that he was a threat to national security.

In March 2009, five years after he had been resettled in the United States, Li stated that the MSS spends most of its time trying to steal secrets overseas but also works to ensure the security of the CCP by monitoring and repressing internal political dissent and religious activity. He also described the MSS's internal counterintelligence role in China, targeted against a perceived threat from foreign intelligence agencies. Li confirmed that the MSS's primary goal, as set out in a highly restricted internal manual, patterned after the **Soviet Union**'s KGB, is to "control the Chinese people to maintain the rule of the Communist Party."

According to Li, the MSS concentrates on the penetration of the U.S. intelligence community and the collection of Western secrets and technology. He also described the censorship of the Internet to prevent the Chinese population from learning about the outside world. While recognizing the need to develop the MSS's existing liaison relationship with the **Central Intelligence Agency** and the **Federal Bureau of Investigation** to counter international terrorism, Li warned that American agencies should approach such cooperation with caution as the MSS is an organ of the Communist Party and does not directly serve the interests of China or its people.

LI JAIQI. Released from prison in the People's Republic of China in 1975 after having served 28 years on charges of having spied for **Taiwan**, Li Jaiqi returned to Beijing in 1981, accompanied by his courier, Cai Ping, and his adopted daughter, Qiu Yunnei. All three were arrested in June 1983, and Li, aged 56, was sentenced to life imprisonment for having sent more than 120 messages concealed in secret ink. Cai received three years and Qiu five, for

passing confidential documents to her father. *See also* NATIONAL SECURITY BUREAU (NSB).

LI KENONG. One of the top three intelligence officers working for Zhou Enlai, Li Kenong was a deputy chief of staff in the **People's Liberation Army (PLA)** and a vice-minister for foreign affairs. In 1947, he was appointed head of the **Central Department of Social Affairs**, replacing **Kang Sheng**, and then, in 1955, headed the **Central Investigation Department**. He died in 1962 and was succeeded by **Luo Qingchang**.

LILLEY, JAMES. The first **Central Intelligence Agency (CIA)** station chief to serve at the U.S. Liaison Office in Beijing, established to move toward the normalization of diplomatic relations between the **United States** and the People's Republic of China (PRC), in 1973, Jim Lilley was appointed following talks between Henry Kissinger and **Mao Zedong**. Between 1951 and 1974, Lilley worked in the Far East Division of the CIA's Clandestine Service, serving in Vientiane between 1965 and 1968 and, in 1984, was appointed the U.S. representative in Taipei. In 1989, he was posted by President George H. W. Bush to Beijing as ambassador and remained there until his retirement in 1991.

Born in Qingdao, China, in 1928, where his father was an executive with Standard Oil and his mother a teacher, and known by the Chinese name Li Jieming, Lilley learned to speak Mandarin as fluently as he spoke English and French. In **Taiwan**, between 1982 and 1984, Lilley often met President Chiang Ching-kuo and other leaders in and out of government and was exceptionally well informed about local conditions and political developments.

Soon after Lilley's appointment in Beijing, the scale of demonstrations in Tiananmen Square escalated, and the CIA's station in **Hong Kong** warned that an attempt might be made to seize the pro-democracy leader Fang Lizhi from his refuge in the U.S. embassy. Diplomats observed the protestors and troops from monitoring points and vehicles and by listening in, with permission, on ABC-TV's internal radio communications. As tension rose, the military attaché Larry Wortzel received a warning by telephone to evacuate the diplomats' apartments before the **People's Liberation Army** raked the buildings with rifle fire. As the crisis developed, Lilley's Confidential contacts provided some insight into debates among the Chinese leadership.

In his 2005, memoirs *China Hands* Lilley recalled having been present in 1977 when Vice President George H. W. Bush met **Deng Xiaoping** and describes the administration's debate over the August 1982 communique with the PRC that was supposed to limit U.S. arms sales to Taiwan and mentions a secret Ronald Reagan memorandum that effectively nullified the communique. He also revealed Reagan's simultaneous "six assurances" to Taiwan that promised no pressure to negotiate with Beijing and describes the controversial arms sales to Taiwan, which included the Indigenous Defense Fighter and the F-16 fighter.

Widely recognized as probably the only American diplomat to have been admired and trusted by both the governments of Taiwan and the PRC, Lilley was appointed the U.S. ambassador to **South Korea** in 1986. While in Seoul, he delivered a personal letter from President Ronald Reagan to Korean President Chun Doo Hwan that helped avert a military crackdown on pro-democracy demonstrators. After his retirement in 1988, Lilley continued to write and comment on Chinese issues and died on 15 November 2009 in Washington DC.

LIN BIAO. During the night of 12 September 1971, Lin Biao, minister of defense and deputy to **Mao Zedong**, was killed when his aircraft, a British-built Trident, crashed in Mongolia while apparently en route to the **Soviet Union**. Soon afterward, rumors circulated that Lin, who in 1969 had been designated as Mao's heir apparent, had been involved with his wife (Ye Qun), their son, and a group of senior military staff officers in a plot to assassinate Mao and replace him. Among those who were purged following Lin's death were Huang Yongsheng, the chief of staff of the **People's Liberation Army (PLA)**, and the air force commander, Wu Faxian. Rumors also persist that Lin's death was the result of some clandestine intervention by the ubiquitous intelligence chief **Kang Sheng**, who supposedly had arranged for an air accident to be staged as cover for the murder of Lin and his associates in Beijing. Kang himself headed the group that investigated the death of Lin, noting that the bodies recovered at the crash scene and turned over to the Soviets were unrecognizable.

After his death, Lin was condemned as a traitor and, along with his former political ally, Jiang Qing, was accused of being a "major counterrevolutionary." Lin is also considered to have been one of the most able commanders of the PLA, having been especially effective during China's Civil War when he directed the PLA's conquest of Manchuria and

personally led his Red Army troops into Peking. However, his involvement in the **Cultural Revolution** and his effort in 1971 to restore the position of state chairman led to his being mistrusted by Mao, and he joined the ranks of many who, though loyal, were betrayed by Mao and Kang.

LINDSAY, MICHAEL. A British academic and **Secret Intelligence Service (SIS)** wireless operator, Michael Lindsay was politically sympathetic to the Communist forces to which he was attached in Yunnan Province in 1943. As an adviser on radio communications, Lindsay was in a good position to keep SIS informed of local conditions and developments and, according to Richard Aldrich's *Intelligence and the War against Japan*, was a key source for the British and ensured they were well informed about **Mao Zedong**. *See also GREAT BRITAIN.*

LIN HAI. On 3 May 2001, Lin Hai (aged 30), Xu Kai (aged 33), and Cheng Yongqing (aged 37) were indicted in New Jersey for stealing proprietary information from Lucent Technologies and selling it to the state-owned Datang Telecom Technology Company, one of the People's Republic of China's (PRC) largest phone and computer manufacturers. Having obtained advanced degrees in America before joining Lucent at very large salaries, Lin and Xu had business visas. Cheng, a naturalized American, was the vice president of Village Networks, a New Jersey-based information technology company.

According to a further indictment issued in April 2002, the trio had created a company, ComTriad Technologies, and received \$1.2 million from Datang as part of a joint venture to produce computer software for use in low-cost Internet data services. Having stolen Lucent's PathStar software system, they marketed it to Datang as the CLX-1000.

Lucent had extensive business dealings in the PRC, having signed lucrative contracts and invested millions in Chinese companies, and Datang denied emphatically that it had engaged in anything improper. Accordingly, in September 2001, the U.S. district attorney requested the PRC government's cooperation to obtain documents relating to Datang's relationship with ComTriad and sought permission to interview Datang employees. A year later, the request was granted, and in 2003, prosecutors set a precedent by taking depositions from Datang employees for a trial to be held in the **United States**. However, in 2004, Lin jumped bail, presumably returning to China, and all charges were dropped against Xu

and Cheng. *See also* INDUSTRIAL ESPIONAGE; TECHNOLOGY ACQUISITION.

LI QING. On 26 September 2008, Li Qing was sentenced in California to a year and one day in custody, followed by three years of supervised release, and fined \$7,500 for conspiring to smuggle military-grade accelerometers from the **United States** to the People's Republic of China (PRC). According to the prosecution, Li conspired with an unindicted coconspirator in China to obtain up to 30 Endevco 7270A-200K accelerometers for what she was told was a "special" scientific agency in the PRC. The accelerator has military applications in the development of missiles and smart bombs and in calibrating the g-forces of nuclear and chemical explosions.

Li originally approached Endevco to purchase and export the accelerators, but the company notified federal authorities who set up a sting operation. When told by an undercover agent that "I don't think the U.S. Government will give us a license to export these items to China," Li replied that she did not wish to get into trouble and would refer the matter to a friend. The agent then received an e-mail sent from chinaman326@hotmail.com, who still wanted to purchase the items, and investigators established that the source of the message was in Beijing. Previously, the same hotmail account had been accessed from an Internet account belonging to Li's husband, and an intercept on Li's telephone revealed calls to a number in Beijing. At one point, Li conducted a three-way telephone call with the agent and her coconspirator to discuss the delivery of the accelerometers to the PRC. Li was indicted on 18 October 2007 and pleaded guilty on 9 June 2008. *See also* TECHNOLOGY ACQUISITION.

LI SHAOMIN. In July 2001, an American academic, Li Shaomin, was convicted in Beijing on charges of having spied for **Taiwan**. Born in China, Li had a doctorate from Princeton University and was employed as a teacher at a **Hong Kong** university when he was arrested, according to the *People's Daily*, which referred to his guilty plea and recent examples of Taiwanese agents using sex to lure Chinese students to adopt "a hostile ideology." *See also* UNITED STATES OF AMERICA (USA).

LI TSUNG-JEN. In 1965, the 74-year-old General Li Tsung-jen, a former vice president and acting president of the Republic of China in 1947, who in 1950 had settled in Eaglewood Hills, New Jersey, rather than move to

Taiwan, flew to Switzerland with his wife and defected to Beijing. Long a political opponent of **Chiang Kai-shek**, Li later claimed that he had been recruited by the **Central Intelligence Agency** to overthrow the generalissimo in a coup and had fled the country to avoid being pressured into participating in the plot.

LITTLE SAI WAN. The local signals intelligence analytical site on **Hong Kong** Island's east coast, Little Sai Wan was the Far East headquarters of the British **Government Communications Headquarters (GCHQ)**, monitoring radio communications inside mainland China. From its establishment in 1953, under Royal Air Force control, the facility became part of GCHQ's worldwide Composite Signals Organization in January 1964, received signals intercepted at Chung Hum Kok and at Old Belvedere atop Victoria Peak on Hong Kong Island and from Tai Mo Shan and Tai Wei in the New Territories. Prior to civilianization in January 1964, when GCHQ took over responsibility for signals intelligence operations in Hong Kong, the task had been divided between the Royal Navy on Stonecutter's Island and some 500 officers and men of the Royal Air Force 367 and 743 Signals Units. In addition, an 18-strong detachment from the Royal **Australian** Air Force's 3 Telecommunications Unit, based at RAAF Pearce in Western Australia, provided additional support.

In August 1954, a total of 15 wireless positions were operational at Old Belvedere, with a further 23 sets working at the other stations, producing 30,315 intercepts. By December, the intercepts grew to 43,782, generated by a total of 50 sets. By the following year, 53 sets, working for 5,038 hours a week, produced 49,804 intercepts. In March 1957, 64 sets, averaging 7,003 hours a week, produced 61,149 intercepts.

The 367 Signals Unit was disbanded in 1962, and Little Sai Wan closed down in 1982 and moved to a purpose-built facility at Chung Hum Kok, on the southern side of Hong Kong Island, and, in January 1995, was transferred to the Australian Defence Signals Directorate base at Kojarena, near Geraldton, in Western Australia. *See also GREAT BRITAIN.*

LIU, HENRY. A prominent Chinese American and author who wrote under the pen name Chiang Nan, Henry Liu was shot dead in the garage of his home in Daly City, California, in October 1984, apparently to silence his many articles critical of the Republic of China (ROC). The biographer of **Chiang Ching-kuo**, Liu had made powerful enemies but, having agreed to

tone down his comments and having accepted a retainer from the notorious **Intelligence Bureau of the Ministry of National Defense**, had been assassinated.

His killers, led by Chen Chi-li, fled to **Taiwan**, but the **Federal Bureau of Investigation** discovered a videotape implicating the **Kuomintang**, and eventually evidence emerged that the assassination had been ordered by Vice Admiral **Wang Hsi-ling**. Chen Chi-li was convicted of the murder, as was Tung Kuei-sen, who stood trial in the **United States** in 1988. Lui's widow, Helen Liu, later sued the ROC in the American courts, and following a major political scandal in Taipei, her claim was settled. An account of the case was published in *Fires of the Dragon* by David E. Kaplan. *See also* NATIONAL SECURITY BUREAU (NSB).

LIU SIXING. In March 2011, Sixing ("Steve") Liu, an engineer employed by L-3 Communications, was arrested and charged with illegally exporting proprietary military data to the People's Republic of China. *See also* INDUSTRIAL ESPIONAGE; TECHNOLOGY ACQUISITION.

LI YEH-TSENG. Expelled from Addis Ababa in 1968 with his wife, Chen Chun-ying, Li Yeh-Tseng was a career **New China News Agency (NCNA)** professional and an intelligence officer. After military service, prior to 1949, he headed the reporting from the **Korean War**, was appointed a regional news editor in Beijing, and, in 1958, was transferred to the Middle East, where he headed the NCNA bureau in Damascus.

LO CHEN-HSU. In 1983, Lo Chen-hsu, the left-wing editor of the **Hong Kong New Evening Post**, which followed a pro-Beijing editorial policy, was arrested while on a visit to the People's Republic of China and sentenced to 10 years' imprisonment for passing information to the **United States**. Having confessed, Lo was released after a few months.

LO HSIEN-CHE. On 25 January 2011, 51-year-old Major-General Lo Hsien-che, head of the telecommunications and information warfare department of the Taiwanese army's command headquarters for the previous three years, was arrested and charged with having been recruited as a spy by the mainland Chinese in 2004, when he was serving in Bangkok as a military attaché. Allegedly, he had been ensnared in a classic **honeytrap** by a tall, elegant, young woman who traveled on an **Australian** passport.

The recently retired secretary-general of Taiwan's National Security Council, General Ting Yu-chou, commented that it would have been easy for Lo to have gained access to "extremely confidential military information of great value to the mainland, such as combat operation plans," which was interpreted as a suggestion that Lo had betrayed vulnerabilities of the Po Sheng communications system, a network built by Lockheed Martin to link Taiwan directly to the U.S. Pacific Command in the event of a conflict. Such contingency plans are regarded as exceptionally sensitive, and Lo enjoyed some access to them during the period he was engaged in espionage. As a consequence, Taiwan introduced new security screening procedures, including the use of polygraphs for officers promoted to senior posts.

LONG MARCH. In February 1996, a Long March-3D rocket carrying the Loral *Intelsat 708* satellite into orbit failed upon liftoff at the Xichang Satellite Launch Center and crashed into a local village. This incident was the third such incident involving commercial payloads in 38 months and prompted an independent investigation sponsored by the launch provider, the China Great Wall Industry Corporation. Headed by Loral's Dr. Wah Lim, a technical committee included respected industry experts from Hughes Space and Communications, Daimler-Benz Aerospace, and retirees from Intelsat, British Aerospace, and General Dynamics and conducted a thorough review of the incident, concluding that there could have been several possible causes of the accident and not just the one found by the initial Chinese enquiry. This verdict was accepted by the launch provider, which was led by the independent review committee to the principal problem.

However, the advice proffered by the committee had not been submitted in advance to the State Department or cleared by the appropriate authorities, prompting an investigation pursued by the U.S. Defense Technology Security Administration, which alleged that Hughes and Loral had inadvertently passed sensitive information to the People's Republic of China (PRC), which had not been covered by the original Intelsat export license granted to cover the launch. In the Department of Defense's final assessment, "Loral and Hughes committed a serious export control violation by virtue of having performed a defense service without a license," and the matter was referred to the Department of Justice for consideration of prosecution.

The Long March, also known as the Chang Zeng or CZ, is the PRC's principal and most reliable launch system and is scheduled to be improved by the introduction of the CZ-5, due to be operational in 2014. The next generation of rocket, the Pioneer (Kaituoxhe) or KT series, has been under development since 2000 and reportedly has failed in five test flights attempted in 2009 and 2011. *See also* CHINA AEROSPACE CORPORATION (CAC); TECHNOLOGY ACQUISITION; UNITED STATES OF AMERICA (USA); WENCHANG SATELLITE LAUNCH CENTER.

LOVELL, JOHN S. The most senior American intelligence officer to be captured and interrogated by the enemy during the **Korean War**, Colonel John S. Lovell, aged 46, was taken prisoner on 12 December 1950, when his RB-45C Tornado was shot down by Soviet MiG-15s while on a reconnaissance mission over the Yalu River. Although his pilot, Captain McDonough, and the jet's other two aircrew were killed, Lovell survived and was questioned by both Soviet and **North Korean** interrogators. As a member of General Pearre Cabell's air intelligence staff at the Pentagon, Lovell was exceptionally well informed and was found to be carrying a restricted U.S. Air Force handbook on the Soviet order of battle. His belligerent attitude enraged his North Korean captors who paraded him through a local village wearing a placard identifying him as a war criminal, and he was beaten to death by the local inhabitants.

Following Lovell's death, and the loss of a potentially priceless source of information, Chinese **People's Liberation Army** personnel took over the supervision of all prisoner interrogations, and a total of 262 U.S. Air Force pilots underwent the experience. After the armistice, several pilots remained in Chinese hands, including a Canadian, Squadron Leader Andrew MacKenzie, who was not released until 4 December 1954, and the following year, four F-86 pilots were freed, leaving an unknown number unaccounted for, among them Wing Commander John Baldwin, a Sabre pilot who went missing over Korea, and nine other RAF aircrew. *See also* AIRBORNE COLLECTION; UNITED STATES OF AMERICA (USA).

LU FU-TAIN. In April 2009, a 61-year-old Silicon Valley businessman, Lu Fu-Tain, was arrested by U.S. Immigration and Customs Enforcement and charged with illegally exporting microwave amplifiers to the People's Republic of China (PRC). The technology, with a military application, was

the subject of a trade embargo, and Lu was alleged to have instructed employees to conceal the equipment's true destination. Lu had founded two companies, Fushine Technology of Cupertino, California, and Everjet Science and Technology Corporation, based in the PRC. The indictment quoted an internal company e-mail from Everjet to Fushine, "Since these products are a little bit sensitive, in case the maker ask you where the location of the end user is, please do not mention it is in China." In another e-mail, Lu instructed a subordinate to pretend the end user was Singapore rather than China. Lu was charged with one count of conspiring to violate export regulations, two counts of making false statements to a government agency, and one count of violating U.S. export regulations. *See also* TECHNOLOGY ACQUISITION; UNITED STATES OF AMERICA (USA).

LUNEV, STANISLAV. One of the very few Soviet military intelligence officers to defect, Colonel Stanislav Lunev worked at the **Russian** Federation embassy in Washington DC under diplomatic cover in May 1992, when he was granted political asylum to remain in the **United States**. When debriefed by the **Central Intelligence Agency**, he revealed that he had previously been posted to the Glavnoe Razvedyvatel'noe Upravlenie's (GRU) *rezidentura* in Beijing, between May 1980 and December 1983, under TASS news agency cover.

Born in 1946, Lunev graduated from the Suvorov Military Academy in 1964 and studied Chinese at Nanyang University in Singapore. According to him, he had replaced a GRU officer, Oleg Mastrukov, at the TASS bureau, which was headed by the embassy *rezident*, Vasili Soloviev, until September 1980, when he was succeeded by his deputy, Evgeni Kalachev. As recruiting local Chinese was considered a next-to-impossible task because of the scale of hostile surveillance (which often amounted to harassment and even violence), the *rezidentura* concentrated on the cultivation of Western journalists and relied for information on friendly Yugoslav, Czech, and Vietnamese intermediaries. One successful recruitment was an Italian correspondent, codenamed ZAG, who enjoyed good access to the Communist Party and had been granted an interview with Li Xiannian. Although Lunev asserted that "Chinese counterintelligence officers outnumber foreigners almost one hundred to one," he was the first Soviet "in at least five years to recruit a Chinese national." His first agent was Zhan, a student at Peking University and the

son of a local army district divisional commander, with access to classified Central Committee papers, but he was ordered to drop him on the grounds that Zhan's information was too good to be true and most likely he was a double agent.

Lunev's second recruitment was Lu, an engineer at the Beijing Metallurgy factory, who supplied data on locally manufactured weapons, and his third was Zhao, a railway official, whose girlfriend, Jiang, worked in a department at the Ministry of Foreign Trade, handling arms exports to Africa. Both supplied valuable information, and Zhao would later be sponsored by the GRU to immigrate, via Singapore, **Australia**, and **Canada**, to the United States, where he had a relation employed by Northrop on stealth technology.

Lunev's account of the GRU's operations in Beijing included a hair-raising episode in which one of his colleagues, Stepan Koldov, had been lured to a rendezvous by an agent who had been caught and turned by the **Ministry of State Security (MSS)**. At the last moment, the *rezidentura*'s ZENIT intercept station discovered that some 200 MSS personnel and 24 surveillance cars had been alerted to Koldov's departure from the embassy, so he was given a signal to abort the meeting. The GRU believed that the MSS intended to beat Koldov to death and then claim he had been set upon by outraged local citizens.

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MACAO. A Portuguese colony until December 1999, when sovereignty was passed to the People's Republic of China (PRC) to become a Special Administrative Region, Macao was a target for intelligence collection operations conducted by the **Ministry of State Security's (MSS)** Third Bureau through its local representative cover organization, the **New China News Agency (Xinhua)**. One such MSS operation, codenamed WINTER CHRYSANTHEMUM, was reportedly targeted against individuals and companies from **Taiwan** and **Hong Kong**.

Known as *Dongtian Juhua* or simply *Dongju* in colloquial Chinese, the Third Bureau supervised operations in both territories and targeted individuals with local associations. While some agents were in place at the time of the 1949 conquest of the mainland, most are thought to have been more recent arrivals, often representing themselves as businessmen or people with professional occupations. The MSS relies on the bureau to monitor foreign political organizations figures, to penetrate political groups deemed to be potentially hostile or subversive and watch their contacts with outside political groups, and to maintain surveillance on Taiwanese organizations and their leaders, especially those with military connections. Although Third Bureau personnel are assigned to specific targets, the MSS allows them to pursue related cases should the opportunity present itself.

During the Cold War, especially after the withdrawal of the Portuguese secret police (the PVDE) following the 1974 revolution in Portugal, Macao was a convenient environment for the MSS to meet agents, create front companies, and use the territory as a conduit for clandestine procurement programs. *See also* CHEN YONGLIN; CHIN, LARRY WU-TAI; HOLT, HAROLD; MILITARY INTELLIGENCE DEPARTMENT (MID); SUN YAT-SEN; TECHNOLOGY ACQUISITION.

MACKIERNAN, DOUGLAS. A graduate of the Massachusetts Institute of Technology, Douglas Mackiernan was a **Central Intelligence Agency (CIA)** officer who lost his life in **Tibet** under mysterious circumstances in 1950. During World War II, he had served in the U.S. **Office of Strategic Services**, and it is believed that he was on a secret mission to Lhasa for the CIA when he was beheaded by Tibetan soldiers.

Operating under consular cover and accompanied by Frank Bessac, an academic who left the CIA in 1947, Mackiernan was killed during a shooting incident on the frontier, which also resulted in the deaths of two other members of the group, which had made an epic, two-month journey across the desert from Sinkiang Province to establish contact with the Dalai Lama. The mission ended in double disaster because, as well as the perhaps avoidable loss of life, the Chinese Communists invaded soon afterward, using the presence of American spies as a pretext. In 1959, in the midst of a brutal suppression of Tibetans by the **People's Liberation Army**, the Dalai Lama fled into exile, and Tibet has been under uneasy occupation by the People's Republic of China ever since.

It is alleged by his biographer, Thomas Laird in *Into Tibet*, that Mackiernan's consular cover in Tihwa (today Ürümqi), subordinate to the U.S. embassy in Nanking, was to conceal his principal task, which had been to monitor and maybe sabotage Soviet extraction of uranium ore from Koktogai in neighboring Turkestan and to report on activity at the Soviet nuclear test site at Semipalatinsk, but the precise nature of his mission remains unknown. *See also UNITED STATES OF AMERICA (USA).*

MAIHESUTI, BABUR. In March 2010, Babur Maihesuti, a 62-year-old **Uighur** who had been a political refugee in Sweden for the past 13 years, was sentenced to 16 months' imprisonment for spying on other Uighur expatriates for the People's Republic of China (PRC). Maihesuti was convicted of "aggravated illegal espionage activity" after he had been found to have collected personal information about exiled Uighurs, including details of their health, travel, and political activity, and then passed the material to a PRC diplomat and a Chinese journalist, who were PRC intelligence officers. He had also traveled to the **United States** in May 2009 to attend the Third General Assembly of the World Uighur Congress. In sentencing, the judge observed that by opening the door for a large power like China to spy on its nationals in Sweden, China could use the same network for other kinds of espionage. When the Swedish government declared the implicated diplomat persona non grata, Beijing retaliated by expelling a Swedish envoy.

MALAN. Named after a desert flower, Malan is the People's Republic of China's nuclear weapons test center in **Xinjiang** Province, located 1,200 miles west of Beijing near the city of Uxxaktal and known as "Base 21" and

the Northwest Institute of Nuclear Technology. From the moment work began on the site in 1960, to accommodate 2,000 military personnel and 8,000 civilian technicians and support staff, it was the target of foreign intelligence collection, and in 1964, it received “596,” the atomic weapon that was detonated at Lop Nor on 16 October. *See also* AIRBORNE COLLECTION; CHINESE NUCLEAR WEAPONS; SENIOR BOWL.

MALAYAN EMERGENCY. The Chinese-inspired insurgency in Malaya between 1948 and 1957 was intended to undermine the newly created Federation of Malaya and was opposed by **Great Britain**, initially by a police **Special Branch**, a small security service headed by Colonel John Dalley, and army military intelligence units led by the local director of military intelligence, Colonel Paul Gleadell, with additional support from **Combined Intelligence Far East (CIFE)**, located in Singapore and headed by Dick Ellis of the **Secret Intelligence Service**. However, there was a lack of interagency cooperation because of a legacy of bitterness over the wartime activities of Force 136 personnel who disobeyed orders in 1941 to surrender to the Japanese and instead fought a guerrilla war in the jungle while others endured captivity. Opposed only by a dysfunctional local security apparatus, the Chinese-sponsored insurgents gained a considerable advantage when the secretary-general of the Malayan Communist Party (MCP), **Lai Tek**, was exposed in March 1947 as a long-term Special Branch asset who had been recruited in 1939.

MI5’s E Branch, responsible for colonial affairs, was represented in Kuala Lumpur by a **security liaison officer (SLO)**, Arthur Martin, and in Singapore by Courtenay Young and then Alex Kellar and Jack Morton. The appointment of Sir William Jenkin as security adviser was intended to coordinate CIFE, Special Branch, and the Security Service, but it was the arrival in 1950 of Sir Robert Thomson as director of operations that transformed the response to the challenge posed by the MCP.

In 1952, upon the resignation of Police Commissioner Colonel William Nicol Gray, General Sir Gerald Templer took over as high commissioner and began to isolate the MCP by recruiting a large home guard and armed police militia. Under Templer, MI5 provided Arthur Martin and Alec MacDonald to run the Special Branch in Kuala Lumpur, with Keith Wey as SLO and Guy Madoc heading the Security Service. One of their first measures was to introduce a comprehensive identity card system, which

was intended to identify and isolate the insurgents who were known as Chinese Terrorists or simply “CTs.”

Using informers, the Special Branch developed an accurate order of battle for the CTs and their civilian supporters, the Min Yuen, and was able to help the security forces pinpoint the CTs’ jungle hideouts. In October 1951, under increasing pressure, Lai Tek’s successor, Chin Peng, gathered his Politburo together for a meeting with Chinese **People’s Liberation Army** advisers to change the MCP’s tactics, which were contained in a document that became known as the October Directive. In effect, the strategy of indiscriminate attacks on villages, post offices, laborers, reservoirs, and electricity power stations was deemed to be counterproductive, and instead, the MCP would concentrate its effort on British mining and plantation staff and their families so as to avoid alienating the general population.

In April 1952, the defection of a senior Min Yuen leader, Nam Fook, led to a major defeat for the CTs, a setback that was followed in May by the beheading of an MCP Central Committee member, “Shorty” Kuk, by his own bodyguards, who claimed a reward of \$200,000. Then in July, the notorious “Bearded Terror of Kajang,” Liew Kon Kim, was trapped in his jungle camp, which was protected by a swamp, and shot dead during a sweep of the area by a British patrol acting on Special Branch intelligence. Other defectors included a regional political officer, Moo Tay Mei, and a senior commander, Ming Lee, who simply became disillusioned with the MCP.

It was the defection of another senior MCP official, Hor Lung, who surrendered to a lone policeman in April 1958, that proved the campaign’s turning point. Encouraged by the promise of an immense reward, Hor Lung spent four months moving from camp to camp, telling the cadres that the MCP had abandoned military action. Altogether, 152 CTs and 28 of their top commanders obeyed his order to surrender, thus incapacitating the MCP permanently. A further roundup in Johore in August 1958, codenamed TIGER, eliminated the remaining CTs, and by the end of the year, the Special Branch estimated that there were only 868 CTs at large, of whom 485 had taken refuge in southern Thailand.

The application of orthodox counterintelligence techniques to counter the terrorists resulted in their penetration, and a relationship with the MCP’s charismatic leader Chin Ping, cultivated by his former Force 136 commander, John Davies, ensured the insurgency’s ultimate defeat. With

skillful management, Chin effectively destroyed the threat from the MCP and provided a model for intelligence-led counterinsurgency campaigns. The strategy proved so effective that it was repeated in the Borneo conflict, and Sir Robert Thompson recommended the adoption of similar tactics in Vietnam. In 1957, the jungle fighting came to an end, and the Emergency was terminated in 1960, three years after independence, and Chin Peng published his memoirs, *My Side of History*, in Singapore in 2003.

MALAYAN PEOPLES' ANTI-JAPANESE ARMY (MPAJA). Upon the surrender of Singapore to the **Japanese** in February 1942, 165 members of the Chinese-dominated Malayan Communist Party (MCP) slipped into the jungle and underwent training by British personnel in guerrilla tactics to harass the enemy. Thus, the MCP, with strong intelligence links to the **Chinese Communist Party**, formed the nucleus of the MPAJA, an organization that would grow to a strength of 10,000 and be trained and armed by Force 136, the regional Special Operations Executive organization.

Created in 1929 by Chinese veterans of the **Comintern's** Far East Bureau in **Shanghai**, the MCP exercised considerable influence over the local Hainanese community in Malaya and, by 1937, virtually controlled the labor movement, even after the party had been outlawed by the British colonial administration. However, following the Japanese occupation, the MCP provided the only disciplined resistance to the enemy, outmaneuvered the local **Kuomintang (KMT)**, and received support from the British. By February 1943, the MPAJA was in direct contact with Force 136 in Ceylon and received liaison personnel (who were infiltrated into the country by air and submarine) and large quantities of weapons. With this logistical support, the MPAJA eliminated the rival Overseas Chinese Anti-Japanese Army, sponsored by the KMT, and prepared for a major campaign in 1945, timed to coincide with operation ZIPPER, the liberation of Malaya by Allied troops from India.

However, the unexpected Japanese surrender in August 1945 gave the MPAJA the opportunity to disarm the enemy and seize the country before British and Indian troops could take control. However, divisions within the MCP prevented its leader, Lai Tek, from mounting a coup, and by September, the British had established a military administration in Kuala Lumpur and regained much of the countryside. The MPAJA agreed to be disarmed and surrendered 5,497 small arms but omitted to reveal the

location of jungle caches containing Japanese weapons, which would later be used by a hard core of 4,000 MPAJA veterans, who went underground to continue a campaign against the British, masterminded by the MCP, which, in June 1948, resulted in the declaration of an emergency. *See also* GREAT BRITAIN; MALAYAN EMERGENCY.

MAO ZEDONG. Born in 1893, in Hunan Province, Mao came from a peasant background; although, his father, a farmer and grain dealer, attained wealth. For the next several years, Mao alternated between study and work on the farm, eventually embracing Marxist theories, and attended the first session of the National Congress of the **Chinese Communist Party (CCP)** in **Shanghai** in 1921. He developed a unique view of Marxism, which became known as Maoism, a distinctive, peasant-based revolutionary theory, emphasizing guerilla warfare and “winning hearts and minds” through education. He gained increasing influence within the CCP and, in 1934, led his army on the 6,000-mile Long March from Jiangxi to Shaanxi, fleeing the **Kuomintang (KMT)** army of **Chiang Kai-shek**. This year-long epic journey on which he was joined by such luminaries as Zhu De, He Long, **Deng Xiaoping**, and, later, **Zhou Enlai**, served to consolidate Mao’s control over the CCP.

Mao early on embraced the use of torture against those opposed to him and established a reputation as a ruthless disciplinarian, eliminating all opponents, whether real or imagined. The final withdrawal to Formosa of the KMT in 1949 led to the establishment of the People’s Republic of China (PRC) and years of constant upheaval, with various five-year plans, the Great Leap Forward, the Hundred Flowers Campaign, and finally the **Cultural Revolution**. Throughout these episodes, Mao was able to survive because of his complete control of the intelligence apparatus.

At Mao’s direction, the **Ministry of Public Security (MPS)**, or *Gong'anbu*, was formed and reflected the brutal and sadistic personality of its founder, **Kang Sheng**. Although its primary mission, based on the Soviet NKVD model, was the protection of the CCP, it also fostered the cult of personality surrounding Mao himself. The MPS was largely replaced in 1983 by a rehabilitated Deng Xiaoping when he formed the **Ministry of State Security (Guojia Anquanbu)**, but the MPS remains a powerful and sinister presence in the PRC. Mao died in September 1976, having outlived Kang Sheng (who died in 1975) and Zhou Enlai.

MASK. Between February 1934 and January 1937, the British Government Code and Cipher School (GC&CS) intercepted and read clandestine wireless traffic exchanged between the **Comintern** headquarters in Moscow and various illicit stations overseas, including one in **Shanghai**. Analysis of the signals, codenamed MASK, revealed the existence of a worldwide Communist organization and provided clues to the true identity of hundreds of Soviet agents in the Far East. Altogether, 939 messages from Moscow were read and 634 from London, making a total of 1,573 decrypts. The length of the individual messages varied from a couple of lines to several paragraphs, but they revealed the scale of the Kremlin's global espionage network. *See also* GREAT BRITAIN; SOVIET UNION.

MENG, XIAODONG SHELDON. A 44-year-old Canadian software engineer, Meng Xiaodong Sheldon pled guilty in August 2007 at Cupertino, California, to charges of having violated the Economic Espionage Act and the Arms Export Control Act. On 18 June 2008, Meng was sentenced to 24 months' imprisonment and fined \$10,000 for the theft from his employer, Quantum3D Inc. of the source code for the Mantis 1.5.5 program, a fighter training system, apparently for the Navy Research Center in Beijing. *See also* TECHNOLOGY ACQUISITION; UNITED STATES OF AMERICA (USA).

MENG HONG. Having worked for DuPont for 11 years researching organic light-emitting diodes, Meng Hong was found guilty in June 2010 of transferring the company's proprietary information about chemical processes to his e-mail account at Peking University. *See also* INDUSTRIAL ESPIONAGE; TECHNOLOGY ACQUISITION.

MI5. The British Security Service branch responsible for monitoring the activities of suspected intelligence officers operating from the People's Republic of China (PRC) embassy in Portland Place routinely reported that it was unable to provide adequate coverage of the 500 accredited diplomats in London, by far the largest diplomatic mission in the capital. According to the **Ministry of State Security** defector **PLANESMAN**, the embassy was "the most productive in terms of reporting" on science and technology of all the MSS's overseas stations and had been rated fourth in overall importance.

In 1987, the Cabinet Office established an interdepartmental working group to study the problem and received a report from MI5's K (counterespionage) Branch, recording that, as well as the large group of intelligence personnel based at the embassy, there were some 2,000 students at an estimated 300 different colleges in **Great Britain** and that several thousand delegates of various kinds were granted visas annually. As a result, protective security advisers from C Branch embarked on a program of improving the awareness of "List X," defense contractors engaged on classified work who had developed links with Beijing and had accepted visiting Chinese on work experience schemes.

The Cabinet assessment in 1988 concluded that "the Chinese Government is not hostile to the British Government or NATO in the way the Soviet Government and the Warsaw Pact are. We should recognize the distinction between [Soviet] spying with the hostile intent of gaining an advantage over an enemy, and [Chinese] spying with the purely selfish intent of gaining a national advantage."

Nevertheless, the official British policy remained committed to improving bilateral relations with Beijing and encouraging the **People's Liberation Army** to send officers on British training courses. Indeed, MI5 reported, "The Chinese enjoy an access to the Ministry of Defence and Armed Forces that is not afforded to any other Communist country" and noted that the Chinese were "now authorized to receive Confidential information from the MoD."

In 2009, MI5 circulated a 14-page document, *The Threat from Chinese Espionage*, to 300 selected British banks, businesses, and financial institutions, which described a widespread Chinese effort to **honeytrap** vulnerable men, asserting that the Chinese intelligence services try to cultivate "long-term relationships" and have been known to "exploit vulnerabilities such as sexual relationships . . . to pressurize individuals to co-operate with them."

How the Chinese Intelligence Services Meet Their Intelligence Requirements

The Chinese intelligence services acquire political, military, commercial and scientific intelligence by targeting foreigners and foreign organisations that have come to their attention through any number of ways, anywhere in the world. For example, presence at trade fairs, exhibitions, conferences, lectures, membership of institutes, research facilities, language training in China, the diplomatic or social circuit, military duty, media, publicity and websites. It is also possible that they might identify you as being of interest through the information you use to apply for a visa, particularly if you mention you are a government official or the employee of a high tech company.

It is worth noting that ethnic Chinese, whatever their nationality, are likely to be at greater risk of approach by the Chinese intelligence services because of their perceived shared heritage and potential to help the “mother country.”

The Human Approach

The Chinese intelligence services generally take a non-confrontational approach when dealing with foreigners. An undercover intelligence officer might be introduced to the person being targeted by a legitimate Chinese contact as a friend or colleague. The undercover intelligence officer will then try to develop a friendship or business relationship with the target in order to elicit sensitive information. This process can last years. If the target is considered to be an expert in their field they might be invited to give lectures to an invited audience and to share ideas on an all expenses trip. The combination of lavish hospitality and flattery can be very effective in encouraging the target to open up more than they had perhaps intended. The target might not be aware that they have been disclosing information of value to the Chinese intelligence services, much less that the Chinese consider them to have been recruited.

While the Chinese intelligence services prefer to use friendship and gentle persuasion to achieve their aims, they will also exploit vulnerabilities such as sexual relationships and illegal activities to pressurise individuals to cooperate with them. They may also try to elicit cooperation from people of Chinese descent by threatening family members who still live in China.

ESPIONAGE: CHINA

1. The threat of espionage did not end with the collapse of Soviet communism in the early 1990s. A number of countries are continuing to seek sensitive information from UK sources. Traditionally state-sponsored espionage has been carried out for geo-political reasons—to protect the state from foreign threats or to maintain a state’s political regime. However, commercial espionage is a method for a country to maintain its position in world affairs through the development of a strong economy. Examples of commercial espionage include the theft of trade secrets, copyrights or other confidential material, such as contractual agreements and details of negotiating positions.
2. It is estimated that at least 20 foreign intelligence services are currently operating in the UK against UK interests. The Russian and Chinese intelligence services are particularly active, and currently present the greatest concern. For example, the number of Russian intelligence officers in London is at the same level as in Soviet times.
3. The threat against UK interests is not confined to UK territory. Foreign intelligence services may find it easier to target UK interests in their home countries, where they have much greater freedom of action than they would have in the UK itself. Foreign intelligence services are also known to target UK interests in countries where there are far less restrictions and their activities may be tolerated or go undetected by the local authorities. They may also receive support from the host nation.

Introduction

1. The relationship between the UK and China is good and the UK Government is encouraging the growth in business. The UK is one of the largest investors in China and also receives significant inward investment from China. This bilateral trade is growing rapidly. China has

been the UK's fastest growing export market since 2002 and in December 2007 became the UK's largest Asian export market. The continuing rapid growth of the Chinese economy is a major driver of world economic growth. This has benefits but also has challenges. For example, it has increased the competition faced by industries and business sectors in the rest of the world and it increases the competition for raw materials, such as hydrocarbons.

Why are the Chinese involved in commercial espionage?

1. With the death of Mao Zedong (first chairman of the Communist Party of China) and the end of the Cultural Revolution the Communist Party of China (CPC) realised that ideology alone was not sufficient to maintain power. The CPC recognised it would have to deliver a strong economy with material gain for the individual to ensure continued political dominance.
2. Deng Xiaoping (second chairman of the CPC) began China's economic reform partially opening China to the global market. China's economy has since grown rapidly. In its five-year economic plan (2006–2010) the CPC outlined that China must maintain fast and stable economic growth and support the building of a harmonious society. The CPC's aim is to raise the country's gross domestic product (GDP) by 7.5% annually for the next five years.
3. In order to achieve such rapid economic growth Chinese industry must retain a competitive edge. For example, other countries such as India and Vietnam are currently competing with China to offer cheap manufacturing bases for western companies. The increased demand for raw materials, such as oil and iron ore, and new environmental and labour laws, have led to cost increases making manufacturing in China more expensive. This has caused some factories to close suggesting that Chinese industry is struggling to compete in an open market. China is also attempting to diversify its economy, for example, through the manufacture of better made high end products. This diversification of the economy will require the Chinese to increase their knowledge of design and manufacturing processes.
4. Espionage offers a relatively cheap, quick and easy method to obtain information that can help Chinese companies remain competitive. Many of China's biggest companies are state owned, or have close links to the state. They may receive intelligence collected by the Chinese intelligence services, and are also able to undertake commercial espionage for their own benefit. It is for these reasons that China currently represents one of the most significant threats to the UK.

What are the Chinese espionage priorities?

1. China's espionage requirements usually fall into the following categories: political, military or economic. All parts of the UK's national infrastructure fall into at least one of these categories. In terms of commercial espionage, the Chinese regime currently places a particular emphasis on aerospace, space, scientific research and military developments but it has also been active in the energy, raw materials, telecommunications and transport sectors.
2. In terms of UK industry, the Chinese have targeted defence, energy, communications and manufacturing companies. However, any UK company might be at risk if it holds information which could benefit the Chinese. For example, we are aware that other UK industries have been targeted by Chinese electronic espionage activity, these include public relations, business consultancies and international law firms. Some of these companies have

been targeted in their own right; others have been “third parties” and used to target companies for which they provide services.

3. As well as China’s national espionage requirements there are likely to be regional requirements too. China has recently increased the level of autonomy in the provinces. This had meant that in some cases local officials have sufficient powers to request assistance from China’s intelligence services. As some local officials are in control of local companies they are able to use the intelligence services to their advantage, requesting information to increase the competitiveness of local companies. This is likely to result in China’s intelligence services taking an interest in a broad range of information from a variety of business sectors.

What information are the Chinese interested in?

1. Any information which could be used to give a competitive advantage is of interest to the Chinese. For example, we are aware that espionage has been used in attempts to gain information on military and defence technologies, details of patents and high-end design technology, commercial contract negotiations and during takeover bids.

Who is spying for the Chinese?

1. There are a number of organisations within China that have an intelligence gathering role. These civilian organisations such as the Ministry of State Security and the Ministry of Public Security, which collect foreign intelligence and monitor foreign visitors to China, Military organisations within the People’s Liberation Army are also responsible for collecting military intelligence including information on defence technology. Employees of private companies may also be involved in commercial espionage—being tasked by their parent company to steal information from competitors.

How?

1. The Chinese intelligence services have a number of methods for obtaining confidential material. Some use traditional espionage methods, such as cultivating a longer term friendship with a British employee. Others are directed against electronic equipment such as mobile phones and computer networks. The espionage techniques which the Chinese may employ vary from country to country.
2. In Europe and North America the main method of espionage against UK industry is electronic attack. This is due to the difficulties of operating human agents in these countries. In China the intelligence services have few resource constraints in terms of both man-power and technology. The close proximity of other countries in the Far East is likely to make operating in these countries easier. Some of these countries may also be allies of China allowing the Chinese intelligence services to operate with few restrictions. This allows them to use a wide variety of the techniques described below. However, Japan has historically been a difficult country for Chinese intelligence services to operate in. In Africa the Chinese authorities are likely to be able to operate with few restrictions.

The human agent

1. The Chinese intelligence services can identify foreigners of interest through a number of means such as trade fairs, exhibitions and business visas. Once identified an undercover intelligence officer may try to develop a friendship or business relationship often using lavish hospitality and flattery. The Chinese intelligence services have also been known to exploit vulnerabilities such as sexual relationships and illegal activities to pressure individuals to cooperate with them.

Telephones and PDAs

1. In China and its allied countries there is a high threat of phones (both mobile and landlines) being intercepted by Chinese intelligence services. It is likely that Chinese network operators will cooperate with Chinese intelligence services giving them easy access to network information. Mobile phones and PDAs have varying facilities for data storage. They could be stolen allowing access to this information or accessed via Bluetooth, wireless connectivity or infrared links.

Laptops

1. If a laptop is stolen or confiscated it could be accessed or tampered with. A determined individual could steal the standard access control mechanism within a laptop. Following unauthorised access, information could be stolen. However, perhaps more damaging could be the installation of hardware or software, such as keystroke loggers. These could allow repeated, unauthorised access and modification or copying of data over a period of time.

Other vulnerabilities

1. Hotel rooms in major Chinese cities, such as Beijing and Shanghai, which are frequented by foreigners, are likely to be “bugged” by the Chinese intelligence services. Furthermore, there have been cases in which hotel rooms have been searched whilst occupants are out of the room.
2. Business cards, which contain email addresses, provide Chinese intelligence services with valuable information which could be used to conduct electronic attacks against an individual’s organisation.
3. During conferences or visits to Chinese companies you may be given gifts such as USB devices or cameras. There have been cases where these “gifts” have contained Trojan devices and other types of malware.

In December 2006, MI5’s director general, Jonathan Evans, warned that China routinely conducted state-sponsored espionage against vital parts of Britain’s economy, including the computer systems of big banks and financial services firms. Almost on cue, there was a security incident when,

in January 2008, Prime Minister Gordon Brown visited the PRC accompanied by some 25 senior businessmen, among them Sir Adrian Montague, the chairman of British Energy, Arun Sarin, then chief executive of Vodafone, and Sir Richard Branson, the head of Virgin. On the second day of the tour in **Shanghai**, one of Brown's aides was approached by an attractive Chinese woman in the hotel disco, and after a couple of hours dancing, he invited her back to his room. The next morning, he reported to the prime minister's protection team that his Downing Street-issued BlackBerry cell phone had been stolen. A classic honeytrap was suspected, but no evidence emerged to indicate that the loss of the unencrypted but codeword-protected equipment had led to a breach of security. A few months later, in May 2008, U.S. Commerce Secretary Carlos Gutierrez had a very similar experience when the contents of a government laptop were copied while he was on an official visit to Beijing. *See also* BANDA, DR. HASTINGS; HALPERN, ERIC; HONG KONG; KENYA; KUCZYNSKI, URSULA; MALAYAN EMERGENCY; NKRUMAH, KWAME; ROYAL HONG KONG POLICE (RHKP); SECURITY LIAISON OFFICER (SLO); SPECIAL BRANCH; TSANG, JOHN.

MIAO CHEN-PAI. In July 1966, a 29-year-old former member of a Chinese foreign aid delegation to Damascus applied for, and was granted, political asylum in New York.

MiG-19. On 25 August 1990, a Chinese MiG-19, designated Farmer by the North Atlantic Treaty Organization (NATO), landed accidentally at the Russian airbase at Knevichi, near Vladivostok. The pilot and plane were released five days later. *See also* SOVIET UNION.

MILITARY INTELLIGENCE BUREAU (MIB). Taiwan's Military Intelligence Bureau (*Chunch'ingchu* in the Wade-Giles Romanization used by Taiwan or *Junqingju* in the Pinyin Romanization) was formed from Tai Li's wartime Investigation and Statistics Bureau, and although placed under the Chief of the General Staff in the Ministry of National Defense, it was widely assumed to be under the control of the **Kuomintang (KMT)**.

During the 1980s, when Taiwan began to allow visits to the mainland, the MIB recruited numerous individuals to work as agents, initially businessmen, who cultivated high-ranking military and civilian leaders in the People's Republic of China (PRC), and provided reports to the MIB.

These agents were paid as much as \$1,500 per month, with a bonus to reward especially important information, which was usually military in nature. There were taught very little tradecraft, but occasionally some were taught to decipher encrypted messages and use invisible ink.

These amateur spies were often caught by the PRC's security apparatus, which suggested that the MIB had been penetrated. Those arrested were sentenced to lengthy terms of imprisonment, but usually no announcements were made by either side, as there were no official ties between the two countries, unless an incident was publicized by the PRC media. Many MIB agents have died in mainland prisons, and although neither country has ever published any official figures, it is reliably estimated that there are, at any time, several dozen Taiwanese incarcerated in the PRC.

In 2005, Wo Weihan, a 59-year-old owner of a medical research company in Beijing, was convicted of selling military secrets to Taiwan, having been accused of working on behalf of Taiwan's Grand Alliance for the Reunification of China, an organization described as a KMT front. Also arrested, and later executed, was **Guo Wanjun**, a PRC missile scientist who was alleged to be a member of the spy ring headed by Wo.

The PRC tends to publicize the arrest of Taiwanese spies as a means of influencing elections held in Taiwan, and in 2004, Beijing announced the arrest of 24 spies in the run-up to the election held that year. According to a former **Ministry of State Security** officer, the MIB and the **National Security Bureau** are considered "amateurish."

MILITARY INTELLIGENCE DEPARTMENT (MID). The Military Intelligence Department of the **People's Liberation Army**, the *Qingbao Bu*, is also known as the **Second Department** or 2/PLA. The PLA's major intelligence branch, it runs the **China Institute of International Strategic Studies** in Beijing and a training branch, the **Institute of International Relations**, in Nanjing. The MID collects mainly military intelligence in parallel with the **Ministry of State Security (MSS)** through regional offices across the country and coordinates some of its activities with the MSS, which does not have military targets as a priority but is generally quite separate. However, when the MSS acquires intelligence of a military nature or significance, it is shared with the MID, and the MSS also conducts military counterespionage operations and has a role in the protection of important military secrets, such as China's advanced submarine program. In

addition, the MID selects and trains staff to be posted overseas as defense attachés.

The MID's internal structure reflects the organization's responsibilities with the First Bureau, developing human sources, and during the Cold War, it ran training schools in Angola, Afghanistan, and Thailand to support local guerrillas; the Third Bureau, concentrating on **Hong Kong**, **Taiwan**, and **Macao**; the Fourth, Fifth, and Sixth bureaus, covering specific world regions and undertaking analytical work. The Seventh Bureau, focused on science and technology, mirrors the MSS by being closely associated with various research institutes, computer centers, and research establishments.

MIL MI-4. In March 1974, a Soviet Border Guard Mil Mi-4 helicopter accidentally strayed into Chinese airspace and landed south of Belesha in the Altai Krai. The four aircrew were taken into custody but were released with their aircraft in December 1975. *See also* SOVIET UNION.

MIN GWO BAO. An aeronautical engineer from **Taiwan** who had worked at the Lawrence Livermore National Laboratory since 1975, Min Gwo Bao was placed under surveillance by Special Agent Bill Cleveland of the **Federal Bureau of Investigation (FBI)** in an operation codenamed **TIGER TRAP** and searched when, in 1981, he attempted to catch a flight to the People's Republic of China (PRC). He was found to be carrying an index card bearing answers to five questions, one of which concerned the miniaturization of nuclear weapons.

Although Min was not charged, his telephone calls were monitored, and in 1982, he was recorded as he conversed with **Wen Ho Lee** of the Los Alamos National Laboratory. During that conversation, Lee, who later was the subject of the FBI's **KINDRED SPIRIT** investigation, offered to attempt to determine how the FBI had been tipped off about Min. Later, when confronted by Cleveland, Min appeared to be on the verge of making a confession, but he never made any admissions that justified prosecution, so his employment at Lawrence Livermore was terminated. Additionally, a wider FBI investigation, codenamed **TIGER SPRINGE**, was launched to gauge the extent of the PRC's nuclear espionage.

Some years later, Min played some unresolved role in the **PARLOR MAID** investigation. In December 1990, Cleveland, accompanied by his colleague I. C. Smith, who was then seconded to the Department of State's Diplomatic Security, encountered Min in the lobby of a hotel in Shenyang

while conducting a security review of the local **United States** consulate. In conversation with Min, Cleveland learned they were scheduled to be on the same return flight to Beijing, but Min did not catch the flight and was not spotted again. The coincidence, if that was what it was, remains unexplained, but Cleveland later recalled that he had told Katrina Leung of his travel plans. Cleveland later commented to his companion, I. C. Smith, “They knew we were coming before we even left.” *See also CHINESE NUCLEAR WEAPONS.*

MINISTRY OF ELECTRONICS INDUSTRY (MEI). Working in parallel with the **People’s Liberation Army’s Commission of Science, Technology and Industry for National Defense (COSTIND)**, the MEI sponsors the China Academy of Electronics and Information Technology (CAEIT) and works closely with COSTIND’s Beijing Institute of Systems Engineering (BISE) to build the electronic industry’s research infrastructure and is fully integrated into the country’s intelligence architecture.

As an important conduit for technical intelligence, the MEI maintains a network of research facilities, including the 2nd Research Institute Taiyuan; the 5th Research Institute; the 6th Research Institute, which concentrates on computer systems engineering and is also known as the Huasun Computer Company; the 7th Research Institute, or Guangzhou Communications Research Institute, which works on mobile digital communications systems; the 8th Research Institute, or Anhui Fiber Optical Fiber Research Institute; the 10th Research Institute, or Southwest Institute of Electronics Technology (SWIET) at Chengdu, focusing on UHF, microwave, and millimeter communications and radar equipment; the 11th Research Institute, conducting research into solid-state laser systems; the 12th Research Institute, focusing on TACAN systems; the 13th Research Institute in Shijiazhuang, pursuing integrated circuits and solid state lasers, using imported French technology; the 14th Research Institute in Nanjing, developing early warning, phased-array, and space-tracking radars; the 15th Research Institute, or North China Computer Institute in Beijing, and known as Taiji; the 18th Research Institute, or Tianjin Institute of Power Sources; the 20th Research Institute in Xian, researching navigation systems; the 21st Research Institute, in **Shanghai**; the 22nd Research Institute, also known as the China Institute of Radiowave Propagation and associated with the Shaanxi Astronautical Observatory Timing Station; the 25th Research Institute, researching long-wave infrared imaging seekers;

the 26th Research Institute in Chongqing, working on surface acoustic wave devices, piezoelectrics, acousto-optics, electronic ceramics, and crystals; the 28th Research Institute, known as the Nanjing Research Institute of Electrical Engineering, producing air defense and air traffic control systems; the 29th Research Institute, or Southwest Institute of Electronic Engineering (SWIEE), in Chengdu, working on radar reconnaissance and electronic countermeasures; the 30th Research Institute, focusing on research and development on advanced common channel signaling software; the 33rd Research Institute, in Taiyuan; the 34th Research Institute, or Guilin Institute of Optical Communications, which cooperates with Nokia on fiber optics; the 36th Research Institute, producing electronic countermeasures; the 38th Research Institute, or the East China Research Institute of Electronic Engineering (ECRIEE), at Hefei, specializing in early warning and artillery radar; the 39th Research Institute, or Northwest Institute of Electronic Equipment (NWIEE), developing satellite ground stations and microwave relays; the 40th Research Institute, in Bengbu, producing connectors and relays; the 41st Research Institute, developing signal generators and test equipment for infrared focal plane arrays; the 43rd Research Institute, or Hengli Electronics Development Corporation, in Hefei; the 44th Research Institute, or Chongqing Institute of Optoelectronics, researching charged couple devices, infrared focal plane arrays, and fiber optics; the 45th Research Institute, in Pingliang, Gansu Province, working on integrated circuit production technology; the 46th Research Institute, in Tianjin, researching the testing of silicon and gallium arsenide materials; the 47th Research Institute, researching advanced integrated circuits; the 49th Research Institute, or Northeast Institute of Sensor Technology, in Harbin, developing vibration and other sensors; the 50th Research Institute, or Shanghai Institute of Microwave Technology, working on automated surface-to-air (SAM) command systems; the 51st Research Institute, developing radar reconnaissance and jamming equipment; the 53rd Research Institute, or Institute of Applied Infrared Technology, in Liaoning, researching passive jamming and optoelectronic techniques; the 54th Research Institute, or Communications Technology Institute, in Shijiazhuang, working on military systems; the 55th Research Institute, researching semiconductors.

As well as this massive research commitment, the MEI runs a large network of manufacturing plants, including the 605 Factory, producing fiber

optic cable; the 701 Factory, producing radios; the 707 Factory, known as the Chenxing Radio Factory; the 710 Factory, or Zhongyuan Radio Factory, in Wuhan; the 711 Factory, producing maritime UHF systems; the 712 Factory, making airborne UHF systems, in Tianjin; the 713 Factory; the 714 Factory, or Panda Electronics Factory, making HF and airborne UHF systems; the 716 Factory, producing digital communications equipment; the 719 Factory, assembling airborne navigation equipment; the 720 Factory, China's principal radar manufacturer, which is closely associated with the 14th Research Institute in Nanjing; the 722 Factory, producing electronic countermeasures and is associated with the 29th Research Institute; the 730 Factory, producing submarine cable; the 734 Factory, making fiber optic cable and wireless equipment; the 738 Factory, assembling computers and closely associated with the 15th Research Institute; the 741 Factory, producing optoelectronics and infrared systems; the 750 Factory, or Guangdong Radio Group Telecommunications Company; the 754 Factory, in Tianjin; the 756 Factory, making navigation equipment; the 760 Factory, making troposcatter systems; the 761 Factory, or Beijing Broadcast Factory, producing VLF systems; the 764 Factory, or Tianjin Broadcasting Equipment Company, making aviation navigation equipment; the 765 Factory, in Baoji, making aviation navigation equipment; the 769 Factory, producing airborne UHF systems; the 780 Factory, making airborne radar countermeasures; the 781 Factory, making electronic countermeasures equipment; the 782 Factory, in Baoji, making airborne radars and transponders; the 783 Factory, or Fujian Machinery Factory, also known as the Sichuan Jinzhou Electronic Factory, in Mianyang, which produces radars and identification friend or foe equipment; the 784 Factory, or Jinjiang Electronic Machinery Factory, in Chengdu, which produces surveillance radars; the 785 Factory, making optoelectronics equipment, SAM guidance radars, and antiaircraft artillery computers; the 786 Factory, making SAM guidance radars, in Xian; the 789 Factory, making antiaircraft artillery computers; the 834 Factory, making tactical communications equipment; the 913 Factory, producing electronic countermeasures equipment and closely associated with the 36th Research Institute; the 914 Factory, or Lanxin Radio Factory, in Lanzhou; the 924 Factory, making radar reconnaissance and jamming equipment, closely associated with the 29th Research Institute; the 4500 Factory, assembling computers; the 4508

Factory, in Tianjin; 6909 Factory, making electronic countermeasures equipment.

MINISTRY OF PUBLIC SECURITY (MPS). Known in Chinese as the *Gong'anbu*, the MPS was established upon the formation of the People's Republic of China (PRC) in 1949 and served as the country's principal intelligence and security service until the creation, in 1983, of the **Ministry of State Security (MSS)** or *Guojia Anquanbu*, but the MPS remains the PRC's primary internal security service. Rather, more than half the MSS's staff was drawn from the MPS and related organizations, such as research institutes.

The MPS's sole role was, and remains, to serve the interests of the **Chinese Communist Party**, and it became notorious for having adopted the brutality of its founder, **Kang Sheng**, as well as that of **Mao Zedong** himself. Its headquarters in Beijing are located at 14 Dong Chang An Street in a compound that includes a branch of the MSS.

While the MSS is dominant in the field of foreign intelligence and counterintelligence, the MPS is virtually ubiquitous and thus has much more influence over the lives of ordinary Chinese. The MPS has a much wider remit than the MSS, and its activities are almost entirely domestic, preoccupied with social stability. While the MSS will share information about criminal cases and other matters involving foreigners or technical surveillance, the MPS's contribution is largely in support of MSS operations, providing facilities, documents, and cover upon request. Both organizations regularly exchange personnel at all levels, and although the MPS is an intrinsic part of the Communist Party and exercises considerable influence, it is complemented by the MSS's more sophisticated analytical resources. *See also* ALBANIA; CENTRAL DISCIPLINE INSPECTION COMMISSION (CDIC); CULTURAL REVOLUTION; DENG XIAOPING; HAN GUANGSHENG; HAO FENGJUN; HONEYTRAP; INDIA; INFORMATION WARFARE MILITIA; OU QIMING; OVERSEAS CHINESE; PEOPLE'S LIBERATION ARMY (PLA); SHANGHAI; TECHNOLOGY COUNTERFEITING; WAISHIJU; XIONG XIANGHUI; XUE FENG; YU QIANGSHENG.

MINISTRY OF STATE SECURITY (MSS). Known as the *Guojia Anquanbu* or *Guoanbu*, the MSS is the People's Republic of China's (PRC) government's intelligence arm, responsible for foreign intelligence

collection and counterintelligence, located in Beijing in a large compound in Xiyuan, on Eastern Chang'an Avenue, close to Tiananmen Square. Within the security perimeter is an apartment block, Qian Men, where many of the MSS staff and their families live. The MSS operates independently from the **People's Liberation Army (PLA) General Staff Second and Third Departments**, which also conduct military intelligence and counterintelligence operations.

The MSS was created in 1983 and staffed with personnel drawn largely from the **Ministry of Public Security (MPS)**, which hitherto had fulfilled a counterespionage role, and with intelligence cadres from the **Chinese Communist Party (CCP)**. The new MSS was also funded in part by the MPS and established provincial offices, which operated under cover names, such as “Unit 8475.” At the time of the transfer, which was considered controversial because of the political nature of the new organization, there was some reluctance on the MPS’s part to hand over some networks to the MSS. In later years, some of the old MPS professionals came to regret having opted to move to the MSS because, although there were greater opportunities for foreign travel, the financial side-benefits of working closely with industry were no longer available to them. The MSS’s policy of expansion with representative offices in most major towns and cities was reversed in 1997.

The PRC’s intelligence establishment is the third largest after the **United States** and **Russia** and originally reflected the structure of the old Soviet KGB. The MSS is responsible to the premier and state council and the CCP’s Political-Legal Committee that oversees ministry activities. In personnel, the MSS prefers nonprofessional intelligence agents, such as travelers, businessmen, and academics, with a special emphasis on the **Overseas Chinese** students and Chinese professionals working abroad with access to sensitive technological material. Like conventional intelligence agencies, MSS case officers handling sources assign codenames to their sources; although, their system involves a combination of English letters and numbers, such as “LRAX100189” and “NetworkSYproject2.”

MSS intelligence officers are usually recruited before or during their university education, and a large proportion are graduates of the **China Institutes of Contemporary International Relations (CICIR)**, the **Beijing Institute of International Relations**, the **Jiangnan Social University**, or the **Zhejiang Police College**. Those requiring technical

skills usually attend the **Beijing Electronic Specialist School**. These establishments provide training for MSS recruits, who usually come from families with MSS links or otherwise are influential and beneficiaries of *guanxi*. Nevertheless, however well connected the candidates are, they will have to be dedicated and disciplined, although not yet necessarily party members. *Guanxi* is often exercised to facilitate entry into the MSS, and it will also play an unspoken part in future promotion. The MSS's provincial branches are often staffed with PLA and government retirees.

Unlike the KGB, the MSS is not highly centralized and has a regional and provincial presence, recruiting its personnel from local communities. While branch offices receive directives from headquarters in Beijing and are financed by National Security Special Funds, they are largely autonomous, acting as essential adjuncts to the local administration, although only theoretically accountable to it despite receiving what are termed "administrative expenses." In reality, the annual MSS reports submitted to the local government are generally vague, do not contain sensitive material, and are uncontroversial. In contrast, annual branch reports to headquarters contain considerable detail.

Employment on the MSS staff holds considerable social status and is considered a desirable career, with promotions endorsed at both branch and headquarters level. Senior branch positions require the approval of the local administration; although, in practice, the will of headquarters usually goes unchallenged, and branch personnel are regarded as employees of the local government. Indeed, more than half the MSS's staff recruitment takes place in the regions where they will remain for the rest of their careers and where they have local and family links, which are considered important. This structure has no equivalent in the West but enables the MSS to fulfill the increasingly large responsibility of ensuring social stability, considered a significant operational priority. Furthermore, internal transfers and secondments, mainly from the law and political departments of local government, are routine, and training takes place in the branches. There are no centralized, formal training academies, and new personnel are expected to learn their profession by reading old and current operational files, by working with mentors, and attending occasional lectures and conferences. A heavy emphasis is placed on political indoctrination, and although probably less than 15 percent of MSS staff are women, they tend to be almost entirely party members.

MSS personnel are posted overseas under diplomatic cover, from both headquarters and provincial branches, but they do not form separate units based on Russian *rezydenturas* or stations on the British and American models. However, they are instantly recognizable to regular Ministry of Foreign Affairs diplomats who keep their distance. MSS officers attached to diplomatic and consular premises use their own communications channels, and their messages to headquarters are not read by the ambassador. They also have considerable latitude in conducting collection operations and tend not to discriminate in favor of particular targets. Often, they are posted overseas to gain experience rather than to run specific operations or collect intelligence; although, they are expected to report anything of potential value relating to the MSS's priority targets of dissidents, separatists, religious activists, and **Taiwan**. In particular, all MSS personnel are acutely aware that anyone from Taiwan could have hostile intelligence connections and might be of value to headquarters.

Domestically, the MSS exercises responsibility for the surveillance and recruitment of foreign businessmen, researchers, and officials visiting from abroad. The MSS Investigation Department surveillance on dissidents and foreign journalists is often quite obvious, but it is supported by more clandestine measures taken by state ministries, academic institutions, and the military-industrial complex. Covert audio and video monitoring is often employed in hotels frequented by foreigners, and such operations may be used to eavesdrop on conversations with visiting scholars or to obtain information to assist in the recruitment of agents. The MSS is also responsible, running a program entitled "Education" for briefing Chinese traveling abroad and warning them of the likelihood of being approached by hostile Western intelligence agencies.

During the Civil War between the Communists and **Kuomintang**, prior to 1949, the CCP's principal intelligence institution was the **Central Department of Social Affairs (CDSA)**, which subsequently became the **Central Investigation Department (CID)** and was later replaced by the Ministry of State Security in 1983.

During the 1950s, most PRC diplomatic missions abroad accommodated an Investigation and Research Office for intelligence collection staffed by CID personnel, with analysis undertaken by the CID's **Eighth Bureau**, publicly known since 1978 as the CICIR.

Li Kenong died in 1966 and was succeeded by **Luo Qingchang**, while **Kang Sheng**, who had once headed the CDSA and was by that time a member of the CCP's Political Bureau, assumed responsibility for the CID.

During the **Cultural Revolution**, the CID was abolished, and most of its senior leadership was sent to the countryside for reeducation. Its activities and assets were absorbed by the Second Department, while a new organization, the **Central Case Examination Group**, composed of CID cadres under Kang Sheng, was instrumental in the removal from power of **Deng Xiaoping** and others.

Following the death of Lin Biao in 1971, the CID was reestablished, and when Hua Guofeng and Wang Dongxing assumed power in 1977, they sought to enlarge the CID and expand the CCP's intelligence work as part of their more general effort to consolidate their leadership positions, but they were resisted by Deng Xiaoping upon his restoration, who argued that the intelligence system should not use PRC embassies to provide cover and that intelligence personnel should be sent abroad under business and journalistic cover. His view prevailed, and consequently, the CID withdrew from Chinese embassies abroad, leaving only a small number of secret intelligence agents.

A CID veteran, Zhou Shaozheng, became head of the CID's General Office in 1976, but during the CCP's 12th National Congress in 1982, a bureau chief in the Central Taiwan Affairs Office denounced him and alleged that, during the mourning period following Premier **Zhou Enlai**'s death, Zhou Shouzheng had plotted against the premier. An investigation proved Zhou to be innocent, but this incident cost him the chance to be considered for the post of Minister of State Security.

Early in 1983, Liu Fuzhi, secretary-general of the CCP Central Committee's Politburo and minister of Public Security, proposed the establishment of a Ministry of State Security that would merge the CID with the Ministry of Public Security's counterintelligence branch, and this was approved in June 1983 by the National People's Congress, which had perceived a growing threat of subversion and sabotage. Thus, the Ministry of State Security was established under the State Council and charged with ensuring "the security of the state through effective measures against enemy agents, spies, and counterrevolutionary activities designed to sabotage or overthrow China's socialist system." At its inception, the ministry pledged to abide by the state constitution and law and called upon the citizenry for

cooperation, reminding them of their constitutional obligations to “keep state secrets” and “safeguard the security” of the country.

Lin Yun, Deputy Minister of Public Security, was appointed the MSS’s first minister, but in 1985, Yu Qiangsheng, a department head of the Anti-Espionage Bureau codenamed **PLANESMAN**, defected to the United States, causing Lin and the Anti-Espionage Bureau chief to be removed from their posts. Lin was to be replaced by a well-connected English-speaking physicist, Jia Chunwang, but both the Ministry’s public security and central investigation elements insisted that Lin should be succeeded by one of their own cadres. To settle the conflict, the CCP leadership appointed Jia Chunwang, an outsider with ties to neither side, and under him, the MSS achieved a measurable success in gathering nuclear and other technological sensitive information from the United States.

In 1998, Jia was appointed minister of public security to replace Tao Siju, while also serving as the first political commissar and first secretary of the CCP Committee of the Chinese People’s Armed Police. In December 2002, he was named deputy procurator-general, and in March 2003, he was elected China’s Supreme People’s Procurator by the 10th National People’s Congress.

In 1998, **Xu Yongyue**, originally from Zhenping in Henan Province, was appointed minister of state security in succession to Jia, and under his leadership, the MSS concentrated on the illicit transfer of sensitive technology. In evidence given to the Joint Economic Committee of the United States Congress, it was reported that half of the 900 investigations conducted on the West Coast into such crimes involved China, and the **Federal Bureau of Investigation (FBI)** estimated that Chinese espionage in Silicon Valley had risen by 20 to 30 percent each year. In addition, Chinese agents had been detected undertaking similar activities in **Great Britain, France, Germany**, and the Netherlands. In August 2007, Xu was succeeded by his 56-year-old deputy, **Geng Huichang**.

According to information gleaned from defectors, MSS personnel are usually assigned overseas for up to six years, with a few remaining in post for 10 years if required. In most countries, the local MSS office is accommodated by the embassy, but in the United States, there are seven permanent PRC diplomatic missions staffed with intelligence personnel.

In mid-September 1996, in anticipation of the British withdrawal from **Hong Kong**, the Central Military Commission and the State Council

approved the report of the plan drawn up by the MSS and the General Staff Department to reorganize operations. In consequence, an estimated 120 intelligence agents operating in the **United States, Canada**, Europe, and **Japan** under industrial, business, bank, academic, and journalistic cover, were recalled.

The MSS routinely co-opts low-profile Chinese nationals or Chinese American civilians to engage in the acquisition of mid-level technology and data. Travelers, businessmen, students, and researchers are often approached to undertake intelligence tasks, and the MSS maintains control of them through inducements and personal connections (*guanxi*) and the potential threat of alienation from the homeland. Sometimes referred to as the “mosaic method,” these sources gather random information in a disorganized manner that, when assembled later, can be of high value, such as the acquisition of the W-88 nuclear warhead, which, according to evidence given in 1999 to the U.S. Congress, took two decades to gather altogether. The fact that the W-88’s design had been compromised led the FBI to initiate a lengthy investigation, codenamed SEGO PALM, and narrow its focus to several scientists based at Los Alamos.

Economic espionage conducted by the MSS tended to conform to three patterns. The first was the recruitment of agents, often scholars and scientists, before they departed overseas, who were tasked to purchase information. The second used Chinese firms to buy up entire companies that already possessed the desired technology. And the third, most common, method was the illicit procurement of specific technology through Chinese front companies. According to the FBI analysts, over 3,200 such companies had been set up as fronts for intelligence collection purposes. *See also HONEYTRAP; NINTH BUREAU.*

MONTAPERTO, RONALD N. A 68-year-old former **Defense Intelligence Agency (DIA)** analyst, Ronald Montaperto pleaded guilty in September 2006 to retaining classified documents and to passing secrets to his People’s Republic of China (PRC) intelligence contacts and was sentenced to three months’ imprisonment.

Montaperto, who had held a security clearance as a China specialist at a U.S. Pacific Command research center until 2004, admitted having orally briefed two PRC military attachés, Colonel Yang Qiming and Colonel Yu Zhenghe, among others, during his career, which spanned 22 years. He had originally come under suspicion in 1991, when, after eight years in the DIA,

he made an unsuccessful application to join the **Central Intelligence Agency**. An inconclusive investigation was conducted but reopened in July 2003, following information from a defector when he was dean of the Asia-Pacific Center for Security Studies in Hawaii. Although Montaperto had been authorized to have contact with Chinese diplomats, he failed to report all his meetings, and while undergoing a polygraph examination conducted on the pretext of a consultancy post in the intelligence community by the Naval Criminal Investigative Service and the **Federal Bureau of Investigation**, he made several incriminating admissions. After leaving the DIA, he worked at the National Defense University but was in Hawaii at the time of his arrest. According to his plea bargain, which required his full cooperation, Montaperto acknowledged having revealed details of American knowledge of clandestine Chinese weapons deliveries to **Iran**, **Syria**, and **Pakistan**.

Montaperto never attempted to conceal his pro-Beijing views and was regarded as a member of an influential pro-China lobby group in Washington DC active in influencing U.S. foreign policy, sometimes referred to disparagingly as “the Red Team.” *See also* MINISTRY OF STATE SECURITY (MSS); UNITED STATES OF AMERICA (USA).

MOO, KO-SUEN. In November 2005, a Korean, Ko-Suen “Bill” Moo, who was employed as an international sales consultant for Lockheed Martin in **Taiwan**, traveled to Florida to meet undercover U.S. Immigration and Customs Enforcement (ICE) agents, who, for the past two years, had posed as arms dealers.

The ICE investigation had been initiated when two arms dealers, both paid informants, introduced agents to a French intermediary, Maurice Serge Voros, who, in early 2004, had asked for help in obtaining engines for the Black Hawk combat helicopter. The General Electric engines were on the Munitions List of restricted technology, and over the following year, ICE learned that Voros was representing Moo and that Moo was retained by the **People’s Liberation Army**. In an e-mail dated December 2004, Moo acknowledged that China did not want its name on any of the contracts, and in March 2005, he extended his requirements to an engine for the F-16 Fighting Falcon. Other items included nuclear missiles, jet engines, nuclear submarine technology, and a complete nuclear submarine equipped with its nuclear weapons systems.

After a series of meetings in London and Orlando, Florida, Moo, Voros, and the undercover agents agreed to a price of \$3.9 million for one F-16 engine, and in October 2005, Moo transferred the money into a Swiss bank account he controlled. A month later, having chartered a plane for \$140,000 to carry the engine, a F110-GE-129 after-burning turbofan jet capable of giving the F-16 speeds in excess of Mach 2, Moo flew from Taipei to Miami, via San Francisco, with his flight's declared destination as the Shenyang Aircraft Corporation in Shenyang, China.

On 8 November Moo, having been driven to a hangar in Homestead, Florida, to view the engine, told undercover agents that, after he had delivered it to the People's Republic of China, he would like to purchase a complete F-16 and an AGM-129 cruise missile capable of carrying a nuclear warhead 2,300 miles. However, Moo was arrested the next day, and after six months in jail, where he attempted to bribe a judge and an assistant U.S. attorney, he pleaded guilty to multiple offenses and was sentenced to eight months' imprisonment with three years' supervised released, fined \$1 million, and forfeited his share of the \$350,000 seized in the investigation.

Although Lockheed Martin later insisted that Moo had passed a "rigorous" vetting process, the prosecution asserted that he may have transferred technology well before the investigation had begun and had acted as an agent for the PLA for 20 years. After Moo had been detained, an international arrest warrant was issued for Maurice Serge Voros, but he was never caught. *See also* CHINESE NUCLEAR WEAPONS; TECHNOLOGY ACQUISITION; UNITED STATES OF AMERICA (USA).

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NAHARDANI, AHMAD. In February 2003, the owners of Mexpar International Inc. and Pasadena Aerospace, Ahmad Nahardani, aged 55, and Gabriela De Brea, aged 62, were indicted on charges relating to their attempts to export parts of an F-4 Phantom (valued at \$128,000) and the Hawk and AIM-9 Sidewinder missiles to China. Also arrested in the undercover operation was David Menashe of Tel Aviv, who was charged with making false statements to U.S. Customs agents concerning an attempt to smuggle Hawk and Sidewinder parts into the **United States**, an investigation that implicated **Liang Xiuwen** and her husband, Zhuang Jinghua.

In September 2003, Nahardani and De Brea pleaded guilty, and later Mexpar International was placed on three years' probation and fined \$75,000. A year later, De Brea was sentenced to a year's imprisonment, and Nahardani received 21 months. *See also* TECHNOLOGY ACQUISITION.

NANDA DEVI. Following the detonation of the first atomic weapon at Lop Nor in October 1964, the **Central Intelligence Agency (CIA)** sponsored a mountaineering expedition to Nanda Devi, in the Himalayas, to place a plutonium-powered remote sensor near the summit of **India**'s second-highest mountain. The climbers, led by M. S. Kohli, Tom Frost, and Dr. Robert Schaller, made their first attempt in October 1965 but were forced by poor weather conditions to abandon the device and return the following spring. Another CIA sensor, weighing an estimated 40 pounds and dependent on a generator with six plutonium cells, was installed on a neighboring peak, Nanda Kot.

In 1978, the discovery of the two atomic-powered remote sensors provoked a brief diplomatic row between New Delhi and Washington, over allegations of plutonium contamination. *See also* CENTRAL INTELLIGENCE AGENCY (CIA); TOPPER; UNITED STATES OF AMERICA (USA).

NARCOTICS TRAFFICKING. Just as the Japanese occupation forces during World War II encouraged drug use by the local population under their control, intelligence analysts have concluded that, during much of the

Cold War, Beijing regarded the cultivation and export of narcotics as a useful source of foreign currency and a means of undermining the reliability of American troops deployed in southeast Asia. According to President Gamal Abdel Nasser, the Chinese premier Chou Enlai boasted to him during a visit to Cairo in June 1965, “We are planting the best kind of opium especially for American soldiers in Vietnam.” Evidence accumulated by the U.S. Bureau of Narcotics and Dangerous Drugs, and its successor organization, the Drug Enforcement Administration, indicated that **Hong Kong** and Burma provided a large proportion of the world’s heroin and that, during the Cold War, the trade was sponsored by the People’s Republic of China authorities.

NATIONAL MINORITIES. Within the People’s Republic of China (PRC), several distinctive ethnic minorities are regarded by the **Ministry of State Security (MSS)** as potential threats to internal stability, and the organization categorizes all separatists, religious groups, and anti-Communist political activists as counterrevolutionaries, foreign spies, and terrorists. While the overwhelming majority of the PRC is Han, at over 90 percent, there are sizeable Muslim Hui and **Uighur** populations, and the Khampa tribe in **Tibet** and the Mongols have a long history of hostility to Beijing’s policies of transplanting and integrating Han Chinese into target territories to dilute local majorities and establish Mandarin as the PRC’s national language.

From an internal security standpoint, these national minorities are considered susceptible to external influence, with the **Central Intelligence Agency** having supported the Tibetan resistance to the PRC’s occupation. Similarly, some Uighurs have adopted radical Islam and have undergone training across the frontier in **Afghanistan**. The PRC’s constitution recognizes 56 specific ethnic groups and affords them rights, including religious freedom, whereas, from an intelligence perspective, there is a reluctance to acknowledge any distinction between opponents of the regime and the **Chinese Communist Party**. See also SHANGHAI COOPERATION ORGANIZATION (SCO).

NATIONAL SECURITY AGENCY (NSA). Created in November 1952 as a result of perceived poor cryptographic support during the **Korean War**, the NSA replaced the **Armed Forces Security Agency** and became the principal source of American intelligence about China. However, the NSA’s

coverage of China was poor because, in contrast to the Soviet target, it was not considered a priority and, on 10 February 1954, reported to the National Security Council that little had been achieved in developing a window into what was essentially a closed country. The NSA's own Intelligence Advisory Committee noted, "The picture for the major target area in Asia, i.e., Communist China, is very dark."

Part of the normalization agreement made by Dr. Henry Kissinger in 1979, following the loss of NSA facilities in **Iran** and the Soviet invasion of Afghanistan, was the establishment of intercept sites in northwest China at existing seismic monitoring installations at Korla and Qitai, in Xinjiang Province, with a third station at Pamir, for the collection of Soviet signals, close to the Afghan "finger" that extended into China. The facilities were staffed by the NSA, with German Bundesnachrichtendienst and Chinese personnel, and were first disclosed by the *New York Times* in June 1981 in a report asserting that the sites had become operational in 1980 and were concentrated on Soviet missile telemetry signals transmitted from Soviet missile bases at Leninsk, near the Aral Sea, and at Sary-Shagan, near Lake Balkhash. Congressional approval for the project was organized by Senator Joseph R. Biden Jr. as a measure to improve verification of compliance with arms control treaties with the **Soviet Union**.

In November 2009, on the 30th anniversary of the opening of the NSA stations, the director of national intelligence, Admiral Dennis C. Blair, visited Beijing to take part in a secret ceremony to celebrate the relationship. *See also* AIRBORNE COLLECTION; UNITED STATES OF AMERICA (USA).

NATIONAL SECURITY BUREAU (NSB). Created on 1 March 1955, the NSB of **Taiwan** (*Kuo-chia An-ch'uan-chu* in the Wade-Giles system of Romanization used by Taiwan, or the *Guojia Anquanju* in the Pinyin Romanization) amalgamated the civilian Police Administration Office, the Bureau of Exit and Entry Control, and the Justice Department's Investigation Bureau with the military Taiwan Government Command Headquarters, the General Political Combat Unit, the Military Intelligence Headquarters, and the Military Police Headquarters. The NSB also absorbed the **Kuomintang's (KMT)** Social Work Committee and the Overseas Maneuvers Committee. The NSB's first director general, appointed by President **Chiang Kai-shek**, was General Cheng Jie-min, who

had a military intelligence background, had served as deputy to **Tai Li** in the controversial Bureau of Investigation and Statistics (*Juntong*), and had succeeded him after Tai Li's death in 1946. Accordingly, the NSB is often considered to have been derived from the Bureau of Investigation and Statistics.

The NSB consisted of five divisions, covering international intelligence; mainland Chinese intelligence; security and analysis; scientific, technical and telecommunications intelligence; and cryptographic operations. The NSB's director general also chairs the Coordination Meeting for National Security Intelligence, which supervises all Taiwan's security and intelligence activities.

While the NSB has not publicized its successes, it has suffered several embarrassments, including the fraud committed in 1999 by the organization's chief accountant, Liu Kuan-chun, who was suspected of having embezzled almost \$6 million before he departed for **Shanghai**. He was later spotted in Bangkok and then in North America.

When **Donald Keyser** was arrested in Washington DC by the **Federal Bureau of Investigation** for passing documents to two NSB officers, the NSB Director General Hsueh Shih-ming immediately recalled the pair. Later the same year, Hsueh Shih-ming was impeached with eight others after an attempt on the lives of President Chen Shui-bian and Vice President Annette Lu, who were wounded while campaigning in Tainan City on the day before the presidential election. Allegedly, the NSB had failed to act when warned of a possible attack on the president and had not taken the threat seriously.

The organization's political neutrality has often been doubted, and in 2004, Colonel Chen Feng-lin, of the NSB's Special Services Center's logistics department, confessed that he had leaked classified information relating to President Chen's residence and itinerary to a retiree, General Peng Tzu-wen, who had once headed the center and was an outspoken critic of the president. Peng was later indicted for leaking national security secrets on Taiwanese television and potentially putting President Chen's life at risk. *See also CHIANG CHING-KUO; MILITARY INTELLIGENCE BUREAU (MIB).*

NEEDHAM, JOSEPH. Born in 1900, educated at Oundle and a graduate of Gonville and Caius College, Cambridge, where he was a Communist sympathizer in the 1930s though never actually a member of the party,

Joseph Needham married a fellow biochemistry student in 1924 but, in 1937, acquired a Chinese mistress, Lu Gwei-djen, a 33-year-old postgraduate from Nanjing, who taught him Mandarin. She would later work in the **United States**, first at Berkeley and then at Birmingham, Alabama, before settling at Columbia, New York.

In February 1943, after several requests to visit China, Needham was appointed to the Sino-British Scientific Cooperation Office attached to the British embassy in Chungking, and after having taken a ship to Calcutta, was flown to Kunming. There he became close friends with **Mao Zedong** and **Zhou Enlai**, a relationship that continued through correspondence when he returned to Cambridge after the defeat of the **Kuomintang (KMT)**. Over the four years that he remained in China, Needham traveled across much of the country on expeditions to extend British influence and assess the Chinese academic and scientific community and met several other diplomats who were actually engaged in espionage, among them **Oliver J. Caldwell**, working under U.S. Office of War Information cover, and a Glasgow Scot, Murray MacLehose, the British vice consul in the port of Fuzhou, who in November 1971, would be appointed governor of **Hong Kong**. In late 1945, Needham arranged for Lu Gwei-djen to leave New York and join his staff as a nutritionist.

However, in April 1946, he returned to England, having been nominated to help his Cambridge friend Julian Huxley head the science division of the new United Nations Educational, Scientific and Cultural Organization (UNESCO) in Paris. While in Paris, Needham came under investigation by the newly created **Central Intelligence Agency** and was labeled a far left radical. Nevertheless, he remained with UNESCO for two years before leaving for Cambridge in March 1948 to work on a multivolume book, *Science and Civilization in China*.

In 1952, Needham was invited by an old wartime acquaintance, Guo Moruo, then head of the Chinese **Academy of Sciences**, to lead a group of independent scientists investigating claims made by **North Korea** that the United States had engaged in germ warfare during the **Korean War**.

The International Commission began its work in June 1952 and spent two months interviewing villagers who claimed that infected insects, birds, rats, and voles had been dropped by American bombers and that large areas had been sprayed with lethal bacteria. Needham left the analytical work to a staff of 60 Chinese technicians, 23 of whom had doctorates from American

universities, and his report, amounting to 665 pages, was published in French in September 1952. His conclusion, that bacteriological weapons “have been employed by units of the United States of America armed forces, using a great variety of different methods for the purpose, some of which seem to be developments of those applied by the Japanese army during the Second World War. The Commission reached these conclusions, passing from one logical step to another. It did so reluctantly because its members have not been disposed to believe such an inhuman technique could have been put into execution in the face of its universal condemnation by the people of the nations.”

His report proved highly contentious, and upon his return to London, he insisted that the Americans had resorted to infecting their Korean and Chinese enemies with anthrax, smallpox, tularemia, and typhus. However, he was instantly accused of “the prostitution of science for propaganda” and almost lost his Caius fellowship when he returned to Cambridge. His only public supporter, the anthropologist Gene Weltfish, was dismissed from her post at Columbia University.

Four years later, as the controversy subsided, Needham was asked to attend the sedition trial in San Francisco of John and Sylva Powell and Julian Schuman, three radicals who wrote in their English language journal in **Shanghai**, *China Monthly Review*, that the United States had made a secret agreement with the **Japanese** scientists who had worked at the notorious Unit 731, the “water purification camp” at Pingfan in Manchuria, where the most appalling human experiments on live prisoners had been conducted in pursuit of biological weapons. Needham, who had been warned he would not be granted a visa to visit the United States, declined the invitation to appear as a defense witness, and eventually the case was dropped in July 1959.

Needham returned to the People’s Republic of China again in 1964 and then in 1972, when he was greeted by Zhou Enlai and Mao at the Zhongnanhai leadership compound in central Beijing. He retired as master of Caius in 1976, and when his wife, Dorothy, died in December 1987, he resumed his relationship with Lu Gwei-djen and married her in September 1989. However, she died in November 1991, aged 87, and he died in March the following year. His life is documented by Simon Winchester in *The Man Who Loved China*, published in 2008.

NEPTUNE. On 18 January 1953, a U.S. Navy Patrol Squadron 22 Lockheed, twin-engined P2V-5 Neptune maritime reconnaissance aircraft, from Atsugi, flown by Ensign Dwight C. Angell, crash-landed in the sea six miles off the Chinese port of Shantou, formerly Swatow, having been hit by gunfire. A Coast Guard Martin PBM Mariner seaplane attempted to rescue the crew but crashed on takeoff and sank in heavy seas, killing 10 of the 21 men aboard. A destroyer, the USS *Halsey Powell*, then closed in to rescue the survivors under continuous gunfire from shore batteries. *See also UNITED STATES OF AMERICA (USA).*

NEW CHINA NEWS AGENCY (NCNA). Long regarded by Western intelligence agencies as a semitransparent branch of the **Ministry of State Security**, the NCNA began in 1937 as the Red China News agency and has a long tradition of undertaking clandestine roles in pursuit of Beijing's foreign policy goals. Employing an estimated staff of 10,000, the NCNA is represented in all 30 Chinese provinces and, since opening an overseas office in London in 1947, has established 106 other bureaus. The NCNA office in **Hong Kong**, during the era of British rule, was regarded as Beijing's de facto diplomatic presence in the colony.

NCNA bureaus have often been associated with coup plots in third world countries, and in December 1965, the Chinese ambassador in Cairo was withdrawn when the local Mukhabarat found evidence of an attempt to assassinate President Gamal Abdel Nasser linked to the NCNA bureau chief. That regional office, which had covered most of the Middle East, did not reopen until 1985.

The NCNA often conducts subversive operations in isolation of the local diplomatic mission, in an apparent effort to shield Beijing from diplomatic embarrassment, and has established regional centers in Damascus and Dar-es-Salaam. Naturally, these premises became the subject of hostile physical and technical surveillance by Western intelligence agencies because of the difficulty of recruiting penetrations. *See also KAO LIANG; ROYAL HONG KONG POLICE (RHKP); XINHUA.*

NINTH BUREAU. The Ninth Bureau of the **Ministry of State Security (MSS)** fulfills an internal security and counterintelligence function that includes a countersurveillance capability. Sometimes referred to as the anti-defection unit, very little is known outside the MSS about the Ninth Bureau, and even insiders know only of its reputed existence.

NINTH INSTITUTE. The original name of the **China Academy of Engineering Physics**, the Ninth Institute was the center of the PRC's nuclear weapons development program. *See also CHINESE NUCLEAR WEAPONS.*

NKRUMAH, KWAME. Deposed by the police and the military while he was on a visit to Beijing in February 1966, Kwame Nkrumah's political opponents claimed that he had been plotting subversion across West Africa and was intending to make Ghana a client state of the People's Republic of China (PRC). Following the coup, some 500 Chinese diplomats and **New China News Agency** journalists were expelled from the country. The new leadership claimed to have found incriminating Chinese guerrilla warfare handbooks in Nkrumah's private safe, thus confirming the widespread suspicion that Nkrumah had not only himself become a key PRC asset but also had been engaged in a scheme to use Ghana as an intelligence base from which to extend China's influence over the region.

Born in September 1909, Nkrumah was appointed Ghana's prime minister when the country was granted independence by **Great Britain** in March 1957. A graduate of Lincoln University, Pennsylvania, and the University of Pennsylvania and having studied at the London School of Economics, he returned to the Gold Coast, as it was then known, in 1947 and campaigned for independence. During his nine years as leader, Nkrumah pursued radical socialist policies and courted the PRC, encouraging Beijing to establish a major presence in Accra.

In 1962, Nkrumah survived an attempt on his life and became convinced, based on his receipt of some documents skillfully forged by the KGB, that the U.S. **Central Intelligence Agency (CIA)** was not only scheming against him but also had assassinated Burundi's prime minister and had plotted a coup in Tanzania. Nkrumah's response was to draft in KGB and East German personnel to train his National Security Service, but they failed to protect him in January 1964 from a renegade police officer who took a shot at him, killing one of his bodyguards. The KGB again blamed the CIA, persuading Nkrumah he was the victim of an American conspiracy.

In 1965, Nkrumah declared himself president for life but was exiled following the February 1966 coup, which was led by General Joseph Arthur Ankrah, assisted by the head of the local Special Branch, J. W. K. Harley. With British influence restored, by the swift return to Accra of MI5's

Security Liaison Officer John Thompson, the Chinese withdrew, leaving Nkrumah to take up residence in Conakry, Guinea. He died in April 1972, aged 62.

NORTH KOREA. The rigidly Communist state of the Democratic People's Republic of Korea (DPRK), created in 1948 by Kim Sung-il, is the longest surviving client state of the People's Republic of China (PRC) with absolute power exercised after Kim's death in July 1994 by his son Kim Jong-il.

Encouraged to invade **South Korea** in June 1950 by Josef Stalin, the DPRK agreed to an armistice in July 1953, and since then, Pyongyang has maintained an uneasy peace with Seoul. With severe restrictions on diplomats and tourists enforced by a ubiquitous security apparatus, the DPRK was considered a "denied area" by Western intelligence agencies, which relied on technical collection to monitor the regime. Although routine screening of refugees reaching **Japan** provided some limited information about the DPRK, most were found to have already been processed by the PRC's **Ministry of State Security**, so the reporting was not entirely reliable.

Because of the ruthless reputation of the North Korean State Security Department, the number of escapees was small, and even when the occasional diplomat posted abroad defected, their knowledge of the top levels of the regime in Pyongyang proved very limited. Similarly, conventional signals intelligence sources have been unproductive because of the reliance on antiquated landlines and an absence of investment in modern microwave communications, making interception difficult. Nevertheless, the DPRK remained a significant intelligence collection target because of a requirement to assess the threat to South Korea's security and Kim's commitment to developing nuclear weapons and to missile proliferation.

Evidence in 1965 that Moscow had agreed to build a small experimental nuclear reactor at Yongbyon was followed in 1983 by proof that Pyongyang had embarked on a nuclear weapons program using plutonium extracted from a second, larger reactor that went critical in April 1986. In spite of ratifying the nuclear Non-Proliferation Treaty in 1985, the DPRK acquired weapon technology from **Pakistan**, in return for the delivery of missiles, and in 2005, conducted an underground test of a warhead that failed to detonate fully.

Apparently unable to obtain nuclear weapon designs directly from Beijing, the DPRK exchanged the required information with Pakistan for missile technology generated during the development of the No Dong-1 intermediate-range ballistic missile (IRBM), which was test launched over the Sea of Japan in 1992. Based on the Soviet Scud-C, originally supplied by the PRC, the No Dong-1 had an estimated range of 1,500 kilometers, and then the DPRK developed the Taepo Dong-2, a two-stage ICBM with a range of up to 5,000 kilometers, which failed when it was launched in July 2006 at the Musudan-ri test range.

Having proliferated missile technology to Pakistan, which then sold Chinese weapon designs to **Iran** and Libya, the DPRK sold a reactor to Syria. Western efforts to persuade Beijing to curb Pyongyang's exports of missile and nuclear technology and to open the Yongbyon facilities to international inspection proved futile, making the DPRK a major, but frustrating, intelligence target for the West. *See also HWANG JANG YOP; KIM SOO-IM; NEEDHAM, JOSEPH.*

NOULENS, HILAIRE. A police raid in Singapore on the home of a Frenchman named Ducroux, who was a suspected Communist Party member, led to the discovery of an address in **Shanghai** for Hilaire Noulens, a Belgian who was the **Comintern**'s regional representative. Noulens worked as a language teacher, but a search of his home revealed identity papers, including Canadian and Belgian passports, in nine different names. At first, the police believed him to be a Swiss, Paul Ruegg, who had been a prominent Communist Party member until 1924, when he had disappeared to Moscow, but he made no admissions concerning his origins. He and his wife, Gertrude, were handed over to the Chinese authorities for trial, and at a court-martial in Nanking in October 1931, he was sentenced to death and his wife given life imprisonment.

After a long campaign for their release conducted by an international defense committee, in which **Agnes Smedley** and **Richard Sorge** played important roles, the couple were released in June 1932 and deported to the **Soviet Union**. However, during the period they were held in Shanghai, the international police had an unprecedented opportunity to study the contents of three steel trunks, which proved to be the Comintern's regional accounts for 1930 through 1931. Using the Pan Pacific Trades Union as a convenient front, Noulens had liaised with the **Chinese Communist Party**, run a clandestine system of couriers, and had maintained contact with a range of

political activists in Indo-China, **Japan**, **Hong Kong**, and Malaya through various subagents, of whom one was Gerhardt Eisler. When Elisabeth Poretsky, the widow of Ignace Reiss, was asked about Noulens, she recalled that he had once been based at the Soviet embassy in Vienna, where he had used the surname Luft. “He was then about thirty-five years old, not unattractive-looking but extremely tense, forever moving about and switching from one to another of his three languages apparently without noticing.” He had married the daughter of a Russian aristocrat in Rome, where she had been working as a secretary at the embassy, and after the birth of their son, they had been assigned to the Far East. Although the international campaign to gain their freedom was successful, Poretsky asserted that the story of Noulens/Luft had ended in predictable tragedy:

When he came out Luft learned that the Left opposition had been defeated and that Trotsky had gone into exile. We heard from friends that on his release Luft expressed the desire to return to the USSR but said that he would like to talk to Trotsky first. We were not too surprised, it was just the kind of thing Luft could be expected to say. He did not see Trotsky but returned to the Soviet Union. No doubt he was dealt with immediately, for no one ever heard of him again.

As a result of the Settlement Police’s analysis of the Noulens accounts, a Comintern correspondent, Nguyen Ai Quoc, was arrested by the Special Branch in Hong Kong. He had traveled widely, having left Saigon as a ship’s steward, and had worked in restaurants in London and Paris. His arrest prompted another international campaign to prevent his deportation to the French authorities in Saigon, and after his release, he dropped from sight, only to emerge eight years later in French Indochina under the nom de guerre Ho Chi Minh.

When word spread that Noulens had been taken into custody, Sorge left Shanghai but returned soon afterward, apparently confident that he had not been jeopardized. Although he discouraged **Ursula Kuczynski** from helping the Noulens campaign, so as to avoid compromising her, many of those who lent their support, including Smedley and Ozaki Hotsumi, were actively engaged in espionage. It is now believed that Hillarie Noulens was a Russian, Yakov Rudnik, and the woman posing as his wife was another Soviet professional intelligence officer, Tatyana Moiseenko.

O

OFFICE OF STRATEGIC SERVICES (OSS). Prior to World War II, the **United States** did not have a centralized intelligence organization, but in July 1941, President Franklin D. Roosevelt appointed General William “Wild Bill” Donovan as Coordinator of Information. A respected New York lawyer and World War I hero, who had been decorated with the Medal of Honor, Donovan drafted a Memorandum of Establishment of Service of Strategic Information and was named head of the Office of Strategic Services in April 1942.

The OSS was tasked with the collection and analysis of information as required by the Joint Chiefs of Staff and to conduct operations not assigned to other agencies but never enjoyed a monopoly in the intelligence field as the **Federal Bureau of Investigation**’s Special Intelligence Service maintained that role across Latin America and both the Office of Naval Intelligence and the Military Intelligence Department jealously guarded their own areas of responsibility.

As well as conducting operations in Western Europe, the Balkans, North Africa, and the Middle East, the OSS developed a large presence in the Far East and, between 1943 and 1945, trained **Kuomintang** troops in China and recruited guides and resistance forces from indigenous tribes to work with regular troops in Burma. The OSS also armed and trained resistance groups drawn from the ranks of **Mao Zedong**’s Red Army as well as the Viet Minh in French Indochina. The OSS also engaged in clandestine operations across the region and participated in espionage, subversion, and the preparation and distribution of anti-Japanese propaganda.

The OSS was disbanded by President Harry S. Truman’s Executive Order dated 20 September 1945, and some of its personnel were absorbed by the State Department, which acquired a research and analytical capability, and the War Department. *See also* MACKIERNAN, DOUGLAS; TIBET.

OGGINS, ISAIAH (“CY”). Born in New York in 1886 to an immigrant Russian Jewish family, “Cy” Oggins joined the Communist Party of the **United States of America** while an undergraduate at Columbia University and would travel on behalf of the **Comintern** with his wife, Norma, to Paris, Berlin, and China.

In 1938, he was arrested in Moscow, and he was interviewed by two State Department officials in prison in 1943. He was murdered by the NKVD in 1947, but his fate only became known in 1992 when his KGB file was declassified and released, revealing that he had been accused and convicted of treason. In reality, Oggins and his wife spent two years in a large house in the Berlin suburb of Zehlendorf. The couple then moved to Harbin and were associated with **Max Steinberg**, another Comintern agent. *See also SOVIET UNION.*

ORIENTAL MISSION. The British Special Operations Executive (SOE) detachment in China, during World War II, headed by the Jardine Matheson magnate John Keswick, was known as the Oriental Mission, and it established a headquarters at Chungking. Keswick negotiated with **Chiang Kai-shek** for SOE to develop some training facilities on his territory, and Valentine Killery had flown in to complete the arrangements in January 1942. An embryonic special training school (STS) was opened near Chungking in March, but thereafter the relationship had faltered, principally because of the head of the Generalissimo's intelligence service, General **Tai Li**, who, among other demands, insisted that a Chinese officer should head the STS. Instead of finding a compromise, Keswick and his colorful White Russian deputy, Vladimir Petropavlovsky, were ordered to leave the country forthwith. The British ambassador, Sir Alexander Clark Kerr, reported this incident to London, asserting, "SOE got into such bad odor with the Chinese because its personnel were almost exclusively representatives of British interests and their tactless and misguided activities, that Chiang Kai-shek himself ordered them out of China and refused them permission to operate."

Both Keswick and Petropavlovsky were redeployed, the latter to the Balkans and the former to London, where he was appointed director of missions, Area C, covering India, the Far East, and the Americas.

In **Shanghai**, SOE's efforts were effectively nullified by the Foreign Office, which, anxious as ever not to offend local sensibilities, vetoed the only proposal the organization came up with, the sabotage of the *Eritrea*, an Italian warship anchored just off the International Settlement. W. J. Gande, SOE's local representative, headed a team of six untrained volunteers, but their ambitions were thwarted by the ambassador, who prohibited any action that would arouse anti-British feeling, provoke a Japanese occupation, or compromise the settlement's neutrality. Thus, nothing was

undertaken, and the entire group was eventually arrested by the Japanese acting on information from a Kempeitai agent planted in Gande's office. Gande himself was sentenced to four years' imprisonment at the Ward Road Gaol, but most of his team was later repatriated in an exchange of prisoners.

In **Hong Kong**, the position was only marginally better. A local resident, F. W. Kendall, had been recruited by Jim Gavin when he had visited the colony, and Kendall had subsequently gone on an STS 101 course in July 1941. He had returned to form the Reconnaissance Unit, a small stay-behind group centered on some custom-built hides in the New Territories. When the Japanese did sweep down into Hong Kong, Kendall's men continued to harass the enemy and undertake the occasional act of sabotage, but when it became clear that the position was hopeless, they either surrendered or trekked northwest to Chungking. Kendall managed to escape, as did (Sir) Robert Thompson, (Sir) Ronald Holmes, and E. B. Teesdale.

That SOE's Oriental Mission was going to be a catastrophe had been widely predicted. In August 1941, Christopher Hudson had been appointed SOE's first head of Far East Branch in London, and he had sent Major A. B. O'Dwyer to Singapore in November to make an inspection. His subsequent report to SOE's chief, Sir Frank Nelson, had made dismal reading, almost as depressing as Killery's final report, submitted after the evacuation of Singapore. When Nelson gave a copy to his minister, Dr. Hugh Dalton, he observed, "It is most tantalizing to see in the report how His Majesty's representatives have vetoed any preparatory work, cried for help from SOE the moment trouble started, and then complained if we did not deliver the goods." Dalton was so amazed by the document that he commented, "The story ought to be written at length like a novel and printed for private circulation." *See also BRITISH ARMY AID GROUP (BAAG).*

OU QIMING. During his almost three decades of espionage on behalf of the **Ministry of Public Security** and the **Ministry of State Security**, **Larry Wu-tai Chin** was handled exclusively by Ou Qiming. *See also CENTRAL INTELLIGENCE AGENCY (CIA); UNITED STATES OF AMERICA (USA).*

OVERSEAS CHINESE. Overseas Chinese (*Haiwai Huaren*) is the term used to describe people of Chinese birth or descent who live outside either the People's Republic of China (PRC), **Taiwan**, **Hong Kong**, and **Macao**,

regardless of citizenship. People of partial Chinese ancestry may consider themselves as Overseas Chinese, and it is this specific group that is the principal focus of the mainland and Taiwanese intelligence agencies and other organizations devoted to the acquisition of restricted technology and the exercise of political influence.

The PRC leadership does not just hope that Overseas Chinese will cooperate with the mother country, nor even expect them to, but simply assumes the cooperation of all Overseas Chinese. In the traditional Chinese view, they are considered Chinese first and Americans or British citizens a poor second. This applies particularly to first-generation Chinese immigrants, who attract the attention of the PRC and, in many examples, have been compliant.

The Chinese have a long history migrating overseas, and it is estimated that there are well over 40 million Overseas Chinese worldwide, including approximately 4 million in the **United States**, 1.5 million in **Canada**, 700,000 in **Australia**, over 400,000 in **Great Britain**, and 150,000 in New Zealand.

The PRC regularly used the tactic of sponsoring visits from ethnic Chinese to their homeland, and sometimes even to the villages of their families, and then inviting them to attend, and speak at, scientific symposia where classified issues would be raised. Having been softened up with references to their ancestors and appeals to their ethnic loyalty, the target would then be pitched, and not too subtly. Numerous identical reports reached the security authorities of flattering behavior, followed by an unmistakable plea to help the PRC's research. Among those who acknowledged to having succumbed inadvertently to the transparent strategy was George Keyworth, President Ronald Reagan's chief scientific adviser, who had been tempted to expound on implosion principles as applied to the neutron bomb. The Chinese tended to pitch everyone indiscriminately, regardless of stature, which led to suspicion of those scientists who either failed to report an approach or later denied one had occurred. *See also JAPAN.*

OWENS REPORT. On 8 May 1966, a flight of RB-66s, escorted by F-4Cs, accidentally strayed into Chinese airspace while on a mission over North Vietnam and were intercepted and fired on by four **People's Liberation Army Air Force** MiG-17s. One of the MiGs was shot down, prompting a protest from Beijing. An investigation into the incident was conducted by a Pentagon panel headed by General Robert G. Owens, who

was indoctrinated into the routine surveillance missions flown by U.S. Navy EC-121, which was supposed to relay warnings from a clandestine radar site on Monkey Mountain, near Da Nang. Owens learned that there had been a failure of communication and that the EC-121 flight had been aborted. On his recommendation, air control of future flights was transferred to Monkey Mountain, with the **National Security Agency** taking responsibility for all early warning operations. *See also* AIRBORNE COLLECTION; NATIONAL SECURITY AGENCY (NSA); UNITED STATES OF AMERICA (USA).

P

PAKISTAN. The relationship of the People's Republic of China (PRC) with Pakistan dates back to 1951, a shared border, and a mutual antagonism toward **India**. Pakistan supported the PRC during the 1962 Sino-Indian border conflict and received military support from Beijing during and after the 1965 Indo-Pakistan war, including T-59 tanks and F-6 jet fighters, when Islamabad was the subject of an international embargo.

In the nuclear field, the PRC has supported Pakistan's civil and military development program, and in 1983, the U.S. **Central Intelligence Agency** reported that Beijing had transferred the design of a nuclear weapon with sufficient uranium to build two. By an agreement signed by both countries in 1986, the PRC assisted in the construction of three atomic reactors and provided the advanced technology for a uranium enrichment plant. Since then, the PRC has confirmed its participation in the building of two further reactors. The U.S. Department of Energy (DoE) coordinated the intelligence collection on the PRC collaboration with Pakistan and, in August 1998, reported:

Imagery analysis reveals the reprocessing plant in the New Labs area of the Rawalpindi Nuclear Research Center near Islamabad is being expanded and modified to handle irradiated fuel from the unsafeguarded plutonium production center at Khushab.

The DoE predicted that Khushab would have produced sufficient plutonium for one weapon by 2000 and, thereafter, would recover enough fissile fuel for another each year. However, by December 1994, the PRC was delivering to the A. Q. Khan research laboratory at Kahuta components for gas centrifuges, required to speed up the development of weapons-grade fuel, and in 1998, the indigenous Ghauri medium-range ballistic missile (MRBM) was tested, followed on 28 May by the first of a series of nuclear tests.

According to Gordon Oehler, then heading the CIA's Counter-Proliferation Center, "in 1990 the intelligence community detected the transfer to Pakistan of a training M-11 ballistic missile and associated transporter erector launcher, indicating that operational missiles were not far behind. The intelligence community had evidence that the M-11 was covered by the so-called guidelines and parameters of the Missile Technology Control

Regime.” Indeed, two years later, 34 road-mobile Dong Feng-11 short-range ballistic missiles (SRBM) were delivered to Pakistan and caught by overhead imagery at Sargodha. A National Intelligence Estimate circulated in 1996 noted that Pakistan had been supplied with an entire M-11 assembly plant that had been built outside Rawalpindi in 1995:

At least some of the M-11s that have been dispersed to military locations throughout Pakistan are now being stored at Sargodha. But we have yet to see operational missiles on imagery. April imagery showed canisters at Sargodha similar to ones seen at the M-11 production facility in China. But a missile-handling exercise was under way at Sargodha at that time, and the canisters were assessed to be mock-ups for use in that exercise.

The PRC also assisted in the construction of the plant at Rawalpindi that manufactures the Shaheen-1 solid-fueled SRBMs and sold JF-27 aircraft, F-22 P frigates equipped with helicopters, K-8 jet trainers, T-85 tanks, and F-7 fighters. The Shaheen-1 followed by the Shaheen-2 are the local variants of the DF-11, export version, the M-11.

Stability in Pakistan and **Afghanistan** is an important strategic objective for Beijing, which remains sensitive to the threat of Muslim extremism and separatists in **Xinjiang** Province. Accordingly, the **Ministry of State Security** maintains a strong representation in Islamabad, collaborating with the Inter-Service Intelligence organization to protect China’s investment in Pakistan, which includes oil and gas exploration, and to prevent Islamic radicalism from contaminating the **Uighurs**.

As well as being Pakistan’s principal source of defense equipment, China has made a substantial investment in the country’s infrastructure. Among the major Chinese-backed projects has been the construction of the port of Gwadar in Balochistan by the China Harbor Engineering Company, which became operational in 2008; the \$70 million Gwadar international airport, which operates under Pakistani military control; and a \$12.5 billion oil refinery, funded by the Great United Petroleum Holding Company. In strategic terms, the development at Gwadar provides an access to the Arabian Sea and to a major regional airport.

The PRC’s investment in Pakistan’s infrastructure includes the acquisition, in 2007, by China Mobile of Pak-Tel for \$460 million and the control and ownership by the China Great Wall Industry Corporation of a Pakistani telecommunications satellite scheduled to be put into orbit from Sichuan Province in 2011. *See also CHINESE NUCLEAR WEAPONS;*

NATIONAL SECURITY AGENCY (NSA); UNITED STATES OF AMERICA (USA).

PARLOR MAID. Codenamed PARLOR MAID by the **Federal Bureau of Investigation (FBI)**, in 1997, Katrina Leung removed and copied classified documents from the briefcase of her FBI handler, James “J. J.” Smith. When her home was searched in 2002, several classified documents were discovered, including an FBI transcript of a telephone conversation with her contact at the Chinese consulate in San Francisco. Also recovered were documents relating to the FBI’s **ROYAL TOURIST** investigation of Dr. **Peter Lee**. Although neither Leung nor Smith were charged with espionage, the case demonstrated that Leung had been working on behalf of the People’s Republic of China’s (PRC) intelligence agencies for a very long period.

While virtually nothing in her background in the PRC can be verified, she is believed to have been born Chan Man Ying in Guangzhou on 1 May 1954 and to have moved to **Hong Kong** at the age of three, where she was brought up by Susan Chin, her ostensible aunt. They immigrated to the **United States** in 1970, using Taiwanese passports, and Chin married an American citizen eight days after their arrival in New York, where Leung entered high school. Leung became a permanent resident in August 1972 and obtained an undergraduate degree from Cornell University, where she met her husband, Kam Leung, who was preparing for his doctorate in biochemistry.

Leung initially had studied engineering before switching to economics and was to be awarded a master’s degree in business administration from the University of Chicago while working in the city as a bank teller. Apparently, her first contact with PRC officials occurred in New York in 1972, when she worked as a volunteer at the PRC’s Mission to the United Nations. There she joined the Diaoyutai movement, a pro-Communist organization, and participated in demonstrations in support for the PRC’s claim to the Diaoyutai Islands. In New York and Chicago, she had contact with Lu Ping, an identified intelligence officer who headed the **New China News Agency (Xinhua)** in Washington DC.

Leung, later codenamed POETIC FIT while under investigation as a spy, became the general manager of Sida International, an import-export firm in Los Angeles that was suspected of engaging in the illegal transfer of technology to China, and thereby came to the FBI’s attention. Apparently,

the FBI never concluded the Sida investigation, but in 1982, after she had left the company, she became a highly paid informant, maintaining a high profile in Los Angeles and providing information about local Chinese officials and the émigré community. In 1983, she began a sexual relationship with her FBI handler, J. J. Smith, and then started her own business consulting firm in California, where she was a director of the Los Angeles World Affairs Council, as well as being a major contributor to the Republican Party. She was recorded as having made 71 overseas trips during the 20 years she worked as a source for the FBI; although, she failed to declare 15 of them.

On those trips, she was said to have been in contact with **Ministry of State Security (MSS)** officers on many occasions and was given a gift of \$100,000 by the PRC president, Yang Shangkun. Certainly Leung was well connected in Beijing, and the Indonesian Chinese tycoon Ted Sioeng, whose family was investigated by the FBI for illegal donations to the Democratic Party, was a friend, and she had business-related contacts with companies such as Northern Telecom (**Canada**). Apparently, Smith made little effort to conceal his relationship with Leung, and she accompanied him to his retirement party, which she videotaped, and to President George W. Bush's inaugural parade in Washington DC. She also lectured classes at the FBI's Academy at Quantico on the management of double agents, and simultaneously carried on an affair with another former FBI special agent, Bill Cleveland Jr., who had led the **TIGER TRAP** investigation involving **Min Gwo Bao**. Early in that case, the FBI had learned that Leung was in contact with Min and frequently had traveled to San Francisco to participate in that operation.

Smith, who met Leung for trysts in London, Hawaii, and Hong Kong, would invariably leave his briefcase, containing highly classified FBI documents, unlocked at her home or in her hotel room. He would also leave her alone with the briefcase, allowing her access to the contents, which she copied. Even after he discovered that Leung was a double agent working for the MSS, he continued to provide her with secret information, and when challenged by the FBI, he denied the affair but was contradicted by videotapes that had recorded the pair engaging in sex in a hotel room. It was not until his fourth interview that he admitted that their affair had lasted eight years. When questions were raised at headquarters by analysts about Leung, Smith declared, untruthfully, that she had taken a **polygraph** test

and passed it. Indeed, Smith had filed no less than 19 evaluation reports describing Leung as “reliable.”

After his retirement in 1993, Cleveland was appointed the head of security at the Lawrence Livermore National Laboratory nuclear weapons research facility in California. He admitted having had a sexual relationship with Leung from 1988 until his retirement, and he had resumed the relationship in 1997 and 1999. He had continued this liaison after he had discovered that Leung had unauthorized contacts with the MSS in 1991, when she had told her MSS handler that Cleveland was to accompany a U.S. State Department inspection tour in the PRC.

Apparently, Leung worked for the MSS and China’s General Ji Shengde to obtain political access in the United States, a manifestation of an influence operation rather than traditional espionage. Reportedly, she also provided information on advanced technology transfers and access to classified documents to China. Her MSS contact at the San Francisco consulate was codenamed MAO, later identified as Mao Guohua, and she had been assigned codename LUO ZHONGSHAN.

Leung’s involvement in obtaining influence is mirrored by another similar operation run by Charlie Trie and Johnny Chung, directed at the Democratic Party, and both were supervised by General Ji. Leung was also responsible for compromising CAMPCON, a major FBI investigation of illegal campaign finance donations made to the Democratic Party. J. J. Smith had participated in CAMPCON, perceived as the PRC’s attempt to funnel money into the 1996 U.S. election in an effort to gain influence inside President Bill Clinton’s White House. Smith was also the primary contact for Johnny Chung, allowing Smith access to the detailed account records of money passed by General Ji through Chung into the Democratic National Committee. A prolific fund-raiser, Chung cooperated with the FBI and pleaded guilty to charges stemming from his admission that he received \$300,000 from PRC intelligence officials to influence U.S. elections.

It is likely that it was a source inside the FBI in Los Angeles who was responsible for compromising a covert operation to install listening devices aboard a Boeing 767 aircraft that was to be used by the president of China while it was in the United States for a refit. The equipment was quickly discovered, and the PRC government disclosed the incident early in 2002, claiming to have found 27 bugs, including some placed in the bathroom and in the headboard of the Chinese president’s bed.

When Smith, codenamed RICH FOLIAGE, underwent an FBI interrogation about his relationship with Leung, the Chinese plane incident was one of several issues raised, and in May 2004, Smith, then aged 60, pleaded guilty to a single charge of making false statements on a personnel security form as part of a background investigation, an offense for which he received three years' probation and a \$10,000 fine. However, he was allowed to retain his FBI pension.

In 2005, the original charge against Leung of the unauthorized copying of national defense information was dismissed due to prosecutorial misconduct after the prosecution denied the defense the opportunity to interview Smith, who was to be a prosecution witness. Thereafter, her lawyers negotiated a plea on charges of lying to FBI investigators and a single count of filing a false income tax return for the \$1.7 million she had received from the FBI, the \$100,000 she had received from the PRC, and some mortgage-related issues. She was sentenced to three years' probation, fined \$10,000, and required to perform 100 hours of community service. *See also* COX REPORT.

PATTEN, CHRISTOPHER. The last British governor of **Hong Kong**, Chris Patten was alleged by ministers in the Labour government elected in May 1997 to have included classified information about the negotiations conducted with China prior to the withdrawal from the colony in his memoirs. The claim proved groundless but drew attention to the role played by senior intelligence personnel, such as Sir Percy Cradock, in the tense discussions held in Beijing during Margaret Thatcher's administration to reach agreement over the future of the leased island and the New Territories. Cradock had been appointed chairman of the Joint Intelligence Committee in 1985 and, for the next eight and a half years, until June 1992, was the prime minister's principal Sinologist and foreign policy adviser.

PENG, YEN-CHIN. In August 2008, following his arrest the previous December, Peng Yen-Chin was extradited from **Hong Kong** to Manhattan to face charges of money laundering and conspiring to smuggle military equipment to **Taiwan**. A mechanical engineer employed by UNU Engineering in Taiwan, "Alex" Peng had been caught by an undercover Immigration and Customs Enforcement (ICE) agent, whom he had solicited to buy a fighter pilot's helmet, which was equipped with the joint helmet-mounted cueing system, an item on the U.S. Munitions List, in a sting

operation involving advanced aiming devices and thermal sights. Peng had already purchased over the Internet infrared laser aiming devices and thermal weapons sights, all of which had been shipped by undercover ICE agents to Taiwan as “toys.” While in Taiwan, Peng had paid an additional fee to ensure the lasers would be exported without the required license.

Peng had intended to declare the helmet as a toy and then have it delivered to Taipei by Peter Liu, a Continental Airlines flight attendant, and on 6 December 2007, following Peng’s instructions, part of the dismantled helmet was handed to Liu in New York, with the agent telling Liu that it had been stolen. Undeterred by this news, Liu still took possession of the helmet.

According to court evidence, Peng’s expertise lay in reverse engineering military equipment. A U.S. citizen from Taiwan who lived in Queens, New York, Liu had only known Peng because he had allowed Peng to purchase various military gadgetry from his eBay account for a relatively small fee. Liu pleaded guilty and was imprisoned for 30 months, and on 15 December 2008, Peng also pleaded guilty and received the same sentence. *See also* UNITED STATES OF AMERICA (USA).

PEOPLE’S LIBERATION ARMY (PLA). With the largest standing army in the world, amounting to 2.25 million ground troops, the PLA is a unified organization that includes the **People’s Liberation Army Air Force**, the Strategic Rocket Force, and the PLA Navy, all of which are under the control of the **Chinese Communist Party’s (CCP)** Central Military Commission. The PLA’s large intelligence organization incorporates the **Military Intelligence Department**, or *Qingbao Bu*, also known as the **Second Department** or 2/PLA.

Founded on 1 August 1927, the PLA’s principal purpose is to give support to the CCP in the People’s Republic of China’s seven military districts through the deployment of 660,000 People’s Armed Police, a paramilitary force created in 1983, which fulfills an internal security role under the aegis of the **Ministry of Public Security**. Apart from temporary deployments abroad during the **Korean War**, in North Vietnam between 1965 and 1970, the invasion of **Tibet** in 1950, and border clashes with the **Soviet Union** and **India**, the PLA maintains a defensive posture when not conducting exercises to threaten **Taiwan**. *See also* ARMED FORCES SECURITY AGENCY (AFSA); ALBANIA; ANUBIS; AUTUMN ORCHID; BLACKBIRD; CAMPCON; CENTRAL INTELLIGENCE AGENCY

(CIA); CENTRAL INVESTIGATION DEPARTMENT (CID); CHARBATIA; CHINA ACADEMY OF ENGINEERING PHYSICS (CAEP); CHINA INSTITUTE OF INTERNATIONAL STRATEGIC STUDIES (CISS); CHINESE NAVAL STRENGTH; CHINESE NUCLEAR WEAPONS; COMMISSION OF SCIENCE, TECHNOLOGY AND INDUSTRY FOR NATIONAL DEFENSE (COSTIND); COX REPORT; CULTURAL REVOLUTION; DENG XIAOPING; DIXIE MISSION; EIGHTH BUREAU; ENGELMANN, LARRY; FIRST BUREAU; FOREIGN LANGUAGE INSTITUTE (FLI); FOURTH DEPARTMENT; GENERAL STAFF DEPARTMENT / PEOPLE'S LIBERATION ARMY (GSD/PLA); GHOSTNET; HARBIN INSTITUTE OF TECHNOLOGY; INFORMATION WARFARE; INFORMATION WARFARE MILITIA; INTERNATIONAL LIAISON DEPARTMENT (ILD); LI KENONG; LILLEY, JAMES; LIN BIAO; LOVELL, JOHN S.; MACKIERNAN, DOUGLAS; MALAYAN EMERGENCY; MI5; MINISTRY OF ELECTRONICS INDUSTRY (MEI); MINISTRY OF STATE SECURITY (MSS); MOO KO-SUEN; PIRACY; PRINCELEINGS; PROJECT 863; SHADOW NETWORK; SHANGHAI COOPERATION ORGANIZATION (SCO); SHU QUANSHENG; SINO-VIETNAMESE WAR; SIXTH RESEARCH INSTITUTE; SOVIET UNION; THIRD DEPARTMENT; TITAN RAIN; U-2; XIONG XIANGHUI; YU JUNGPING; ZONGCAN SANBU.

PEOPLE'S LIBERATION ARMY AIR FORCE (PLAAF). Ill-equipped to defend the mainland from air attacks mounted from **Taiwan** after China's Civil War, the PLAAF was dependent on Soviet support in the form of General Pavel F. Batitsky's 106th Fighter Aviation Regiment (IAD) to protect **Shanghai** and, from July 1950, on the 151st Guards IAD at Shenyang to train the MiG-9 and MiG-15 novice pilots of the 4th Air Division, and the PLAAF was also dependent on the Soviets to provide cover for the 13th Chinese People's Volunteer Army during the **Korean War**. At least one Taiwanese P-51 Mustang was shot down, on 2 April 1950, by Soviet interceptors based in **Shanghai**, which four months later, on 9 August, accidentally destroyed a Tupolev-2 Bat, mistaken for a B-25 Mitchell.

The Chinese pilots, later part of the Joint Air Army formed with the North Koreans, were no match for the more experienced American aircrew and

suffered heavy casualties when they ventured out of PRC airspace, which was the limit of Soviet combat operations.

Even before the Korean ceasefire in July 1953, the PLAAF was engaged continuously in challenging **Kuomintang** aircraft that routinely entered PRC airspace, usually on reconnaissance missions. On 14 March 1950, an F-10, the photoreconnaissance version of the B-25 Mitchell bomber, was shot down by the PLAAF. Then two days later, a P-51 Mustang was hit by groundfire, killing the pilot. On 2 April, another Mustang was shot down by Soviet fighters over Shanghai; on 29 July, a P-57N Thunderbird was destroyed by groundfire near Xiamen. On 18 November 1951, a P-47N Thunderbolt failed to return from a flight over Guangdong. On 16 June 1953, a P-47N Thunderbolt pilot was killed by groundfire over Dongshan Island.

After the Korean ceasefire in July 1953, more Nationalist aircraft were attacked, and on 17 December, a Thunderbolt pilot was lost to groundfire over Jejiang, with another on 9 February 1954 and another on 18 March, shot down by a PLAAF MiG-15. There was a dogfight between a pair of Thunderbolts and two MiG-15s on 11 May, and five days later, a B-17 was downed by groundfire over Fujian, killing all four crew. On 3 June, a Thunderbolt was shot down by a PLAAF La-11 Fang, and on 16 July, another Thunderbolt pilot was killed by a MiG-15. On 12 September, a PBY4 was shot down near Xiamen, killing the crew of nine. On 15 October, a Thunderbolt failed to return from a mission over the mainland, and on 1 November, a Thunderbolt crashed while on a mission to Fujian, killing the pilot. On 17 November, an RT-33A crashed into mountains near Fujian while attempting to evade a MiG-15. On 19 January 1954, an F-84G Thunderjet was shot down by groundfire. Two days later, a Thunderbolt was also lost to groundfire, followed by another on 20 February. On 22 June, an RT-33A pilot was killed over Jiangxi by a MiG-17 Fresco. On 4 July, four MiG-15s were engaged by four Thunderjets, and one Fagot was shot down. On 16 July, a Thunderjet was shot down by groundfire over Kinmen. On 15 October, an F-86 Sabre was shot down by a MiG-15. On 14 April 1956, four Thunderjets engaged four MiG-15s, and shot one down; On 22 June, a B-17 was shot down at night by a MiG-17, killing the crew of 11. On 20 July, four Thunderjets engaged four MiG-15s and shot one down, and on the next day, four more F-84Gs engaged three MiG-15s and shot down two. Later the same day four Sabres engaged three MiG-15s and shot

down two of them. On 4 October, over Shantou, an F-84 was shot down by the PLAAF. On 10 November, a C-46 Commando on an air-drop mission was shot down by the PLAAF over Jejigxi, killing the crew of nine. On 15 April 1957, an RF-84F Thunderflash pilot was killed as he tried to evade a PLAAF MiG. On 1 July, a P-47 pilot was killed by groundfire. On 5 November, a B-26 Invader was shot down and the crew of three captured, to be released the following July. On 18 February 1958, an RB-57D was shot down over Shandong by a MiG-17. On 17 June, a RF-83F Thunderflash crashed, killing the pilot near Fujian while evading MiG-15s. On 29 July, one of four F-84s was shot down by four F-17s near Nan Ao Island. On 14 August, three MiG-17s were shot down by F-86 Sabres. On 25 August, another two MiG-17s were shot down by Sabres. On 18 September, seven MiG-17s were shot down for the loss of one Sabre. On 24 September, 11 MiG-17s were downed by Sabres. Five days later, a C-46 Commando was shot down, killing two of the crew. The two survivors were captured and released on 30 June 1959. On 2 October 1958, another C-46 was shot down by groundfire over Kinmen, killing the crew of five. On 10 October, four MiG-17s were shot down by Sabres, and one Nationalist pilot was captured after his plane had been damaged by debris. On 19 May 1959, a B-17 was destroyed and the crew of 14 killed by a MiG-17 near Guangdong. On 5 July, Sabres shot down two MiG-17s over the Straits of Taiwan. On 7 October, an RB-57D was shot down by an SA-2 near Beijing, killing the pilot. On 16 February 1960, one MiG-17 was shot down by a Sabre over the Straits of Taiwan. On 25 March, an RB-69A was shot down at night, killing all 13 crew, and another was destroyed on 6 November over Shantung Province by an SA-2 Guideline missile. On 1 August 1962, an RB-69A was shot down, killing all 13 crew, and later in the same month, an R-101A Voodoo was lost near Fukien. On 14 June 1963, an RB-69A was shot down near Nanchang, killing all 14 crew, and on 11 June 1964, another RB-69-A was shot down near Yantai, over the Shandong Peninsula, by a MiG-17. On 18 December, a Voodoo was shot down by a PLA Naval Air Force J-6 over Wenzhou in Zhejiang Province, but the pilot was captured and released in July 1985. On 18 March 1965, a Voodoo was shot down by a MiG-19 Farmer. On 10 January 1966, an HU-16 was shot down by a MiG-17 over Matsu. On 13 January 1967, four F-104G Starfighters were engaged by 12 MiG-19s over the Straits of Taiwan, with the loss of one Starfighter and one MiG. On 22 August, a C-123B Provider was shot down over the South

China Sea. After 1967, no further incidents involving Nationalist aircraft attributable to the PLAAF were reported.

Throughout the Cold War, Chinese ground forces and the PLAAF also confronted **United States** aircraft, sometimes inside PRC airspace, but often with deadly results. The missions varied from signals intelligence collection, photoreconnaissance, agent insertions, leaflet drops, and “ferret” flights intended to test an adversary’s response and provoke the Chinese ground defenses to activate their radars. On 4 April 1952, a member of a U.S. Navy bomber’s aircrew was wounded by gunfire from a trawler 100 miles south of Shanghai but survived the flight back to Taiwan. On 31 July, two U.S. Navy aircrew were killed and two wounded when their PBM-5S2 Mariner was attacked by two MiG-15s, but the seaplane was able to limp to Pangyong-do in Korea. On 23 November, a U.S. Navy PBS4Y-2S Privateer from VP-28 Squadron was attacked by a single Fagot off Shanghai but was unscathed. On 12 January 1953, a U.S. Air Force B-29 Superfortress on a leaflet drop over Manchuria was shot down by PLAAF fighters. Three of the crew were killed, and 11 were captured, to be released in 1956. On 6 March, a U.S. Navy F4U Corsair reportedly was shot down over Qianlidao in Qingdao. On 23 April, a U.S. Navy P4M-1Q Mercator was attacked by a pair of MiG-15s off the coast of Shanghai but escaped undamaged, as did a U.S. Navy PB-5S2 Mariner of VP-26 Squadron fired on by a PLA Navy vessel in the Formosa Strait on 28 June. On 8 July, a U.S. Navy P2V-5 from VP-1 Squadron escaped antiaircraft fire near Nantien. On 21 July, a U.S. Navy PBM-5 Mariner was attacked and damaged over the Yellow Sea by a pair of MiG-15s; another PBM-5 Mariner from VP-50 was attacked by two MiG-15s 30 miles east of Tsingtao on 2 October. On 18 November, a further Mariner was attacked by two MiG-15s but returned to VP-50 safely. On 27 January 1954, a U.S. Air Force RB-45 Tornado, with an escort of F-86 Sabres, was attacked over the Yellow Sea by eight MiG-15s, an engagement that resulted in the loss of one Fagot. On 9 April, a U.S. Navy P2V Neptune from VP-1 Squadron was attacked over the Yellow Sea by MiG-15s but escaped unscathed. In February 1955, the wing of a U.S. Navy P2V was hit by antiaircraft fire while over the Formosa Strait but survived. Later, on 5 February, an RB-45 Tornado of the 91st Strategic Reconnaissance Squadron was attacked over the Yellow Sea by MiG-15s. A dogfight with eight F-86 Sabre escorts ensued, and two Fagots were shot down. Four days later, on 9 February, a U.S. Navy AD-5W Skyraider off

the USS *Wasp* was shot down, but the crew was rescued by the Taiwanese. On 17 April, a U.S. Air Force RB-47E Stratojet from the 4th Strategic Reconnaissance Squadron from Eielson was shot down near Kamchatka by two MiG-15s, killing two of the crew. On 10 May, eight F-86 Sabres were attacked off Sinuiju in Korea by twelve PLAAF MiGs, with the loss of two MiGs and one Sabre. On 15 October, a U.S. Air Force F-86 Sabre was shot down by a MiG-15. On 12 June 1957, four AD-6 Skyraiders from VA-145 Squadron off the USS *Hornet* penetrated Chinese airspace over the coast and experienced antiaircraft groundfire but suffered no losses. This incident was effectively the last encounter between the two protagonists; although, on 14 February 1968, a U.S. Navy A1-H Skyraider on a ferry flight from VA-25 Squadron in the Philippines was shot down over Hainan Island when it accidentally strayed into Chinese airspace, killing the pilot.

The PLAAF has suffered the defection of several pilots, such as Gao Youzong and then Sun Tianqin, a 46-year-old test pilot, originally from Fengxiang, who flew his J-711 experimental aircraft from Dalian to Seoul, **South Korea**, in August 1983. An airman since graduating from an advanced training course at the 11th Aviation School, Sun revealed that he had undergone reeducation during the **Cultural Revolution** before being allowed to fly again in 1975. His plane was found to be equipped with the very latest avionics, including the Marconi head-up display and weapon aiming computer and Skyranger airborne radar. Sun joined the Taiwanese air force and, having married a musician, immigrated to **Canada**.

Others who have flown their aircraft to safety, eventually seeking refuge in Taiwan to collect a well-advertised bounty, include Liu Zhiyuan in November 1987. Disaffection caused by the suppression of the Tiananmen Square demonstrations were cited as motives for some escapes, principal among being Lieutenant Jiang Wenhao, a 23-year-old graduate of the 13th Aviation School and officer of the 145th Regiment of the 49th Division, who flew his Shenyang J-6 from Longxi airport in Zhangzhou to Shangyi airport on Kinmen Island in September 1989. On the following day, he was moved by ship to the Pescadores and then flown to Taipei, where he enrolled in the Taiwanese air force. Examination of Jiang's plane revealed the existence of an anti-defection device, designed to cut the fuel supply if the aircraft strayed from its designated mission, which had been installed following the defection of another pilot, Liu Zhiyuan in November 1987. After his retirement, Jiang became a celebrated underwater photographer.

See also AIRBORNE COLLECTION; CENTRAL INTELLIGENCE AGENCY (CIA); NATIONAL SECURITY AGENCY (NSA).

PIQUET, JOSEPH. On 14 May 2009, Joseph Piquet was sentenced to 60 months' imprisonment, to be followed by two years of supervised release. The owner and president of AlphaTronX, a company in Port Lucie, Florida, which produced electronic components, Piquet had been convicted on 5 May of seven federal charges arising from a conspiracy to purchase electronic components for military equipment from the Northrop Grumman Corporation and ship them without the required export licenses to **Hong Kong** and to the People's Republic of China. The items included high-power amplifiers designed for use in early warning radar and missile target acquisition systems, as well as low-noise amplifiers that have both commercial and military applications.

Piquet was indicted on 5 June 2008 with his company and with Thompson Tam, a director of OnTime Electronics Technology Limited, an electronics company based in the PRC. *See also* TECHNOLOGY ACQUISITION; UNITED STATES OF AMERICA (USA).

PIRACY. China's burgeoning economic expansion has placed pressure on the People's Liberation Army (PLA) Navy, which rationally undertook a limited maritime role patrolling the Taiwanese Straits and protecting China's regional interests. However, in 2008, seven Chinese merchantmen were seized by Somali pirates off the Gulf of Aden. These incidents prompted the deployment to the Indian Ocean of a PLA Navy task force of three surface vessels on an escort mission carrying 70 special forces to protect the 1,265 Chinese commercial vessels that transit the area annually. The first task force, which began patrols in December 2008, consisted of the modern guided-missile destroyers *Haiku* and *Wuhan*, supported by a replenishment auxiliary, the *Weishanhu*. In April 2009, the warships were replaced by a destroyer, the *Shenzhen*, and a frigate, *Huangshan*. Then, in July 2009, two frigates, the *Zhoushan* and the *Xuzhou*, took over the duty supported by the *Qiandaohu*. This participation in a multinational naval operation represented a radical departure from the PLA Navy's doctrine and demonstrated a capability of deploying for extended periods more than 3,400 miles from its home port of Hainan Island.

An estimated 80 percent of the PRC's imported oil is shipped through the dangerous Straits of Malacca, and a greater reliance on energy imports and

foreign trade make sea lane security an increasing preoccupation for PLA Navy intelligence analysts, who acknowledge a vulnerability to pirates and to the possible threat of a naval blockade. *See also* CHINESE NAVAL STRENGTH.

PLANESMAN. The Federal Bureau of Investigation used the codename PLANESMAN for **Yu Qiangsheng**, a defector from the Chinese **Ministry of State Security**. *See also* CENTRAL INTELLIGENCE AGENCY (CIA); UNITED STATES OF AMERICA (USA).

POLLARD, ANNE HENDERSON. In August 1985, Anne Henderson married Jonathan J. Pollard, an analyst based at the Naval Investigative Service's (NIS) counterterrorism center, and spent her honeymoon in Venice, a holiday paid for by Israeli intelligence officers to whom her husband was selling vast quantities of classified information. Although working in public relations for the National Rifle Association, Anne Pollard actively supported her husband's espionage, and when he was arrested in November 1985, as they attempted to seek refuge at the Israeli embassy in Washington DC, she was also charged. She was sentenced to five years' imprisonment and served three, while her husband was sentenced to life.

During the NIS investigation of the Pollards, evidence emerged that Pollard had approached South African embassy staff in an attempt to sell classified information while his wife had planned to make the same offer to PRC diplomats. *See also* UNITED STATES OF AMERICA (USA).

POSEIDON, HMS. On 9 June 1931, HMS *Poseidon*, a *Parthian*-class submarine built in 1929, sank in 130 feet of water while exercising with its tender, HMS *Marazion*, in the South China Sea after colliding with a Chinese freighter, the SS *Yuta*, some 20 miles north of the British naval base at Weihaiwei on the island of Liugong. All but 18 of the crew were rescued by the aircraft carrier HMS *Hermes*, and two who escaped using a Davis diving apparatus died, but in late 2005, the PLA Navy publication *Modern Ships* reported that the wreck had been salvaged during the early 1970s. A further reference on the **Shanghai** Salvage Bureau's website appeared to confirm that a recovery operation had been undertaken; although, the precise reason for raising it remains unclear as the submarine was obviously obsolete and could not have contained any equipment of current value.

PRICE, MILDRED. Identified by Elizabeth Bentley in her autobiography, *Out of Bondage*, as a Soviet spy, Mildred Price was accused of having provided an apartment in which an underground Communist Party cell could meet. Married to Harold Coy and sister of Mary Price, Mildred Price was the executive head of the **China Aid Council**, a Communist front. Bentley said that at first she had “regarded Mildred merely as an intermediary with Mary, but soon we discovered she would be a valuable adjunct to our apparatus in her own right.” She was the organizer of the Communist unit, which functioned in the Institute of Pacific Relations—a foundation for Far Eastern studies, which had originally been set up by well-meaning philanthropists but had long since fallen under the domination of the Communists. The organization, because of its respectable past and high-sounding title, had been able to enroll in its ranks a vast number of “innocents,” among them professors and businessmen who were interested in Pacific affairs. Hence, it had become the center of all Communist activity in the Far Eastern field, offering a protective covering to a number of smaller, more obviously pro-Communist enterprises that clustered around it. Among these were the China Aid Council, of which Mildred Price was also the executive secretary, and their magazines *China Today* and *Amerasia*.

Mildred Price used the **Institute of Pacific Relations (IPR)** as a pool from which suitable prospects could be talent-spotted, but apart from **Duncan Lee**, Bentley could only recall her rejecting Philip Jaffe, *Amerasia*’s editor, as a candidate because he was too well known as “a red.” Another contact was Michael Greenberg, a Communist Party of Great Britain member and graduate of Trinity College, Cambridge, who had been awarded a PhD from Harvard in 1941 and had worked as Lauchlin Currie’s administrative assistant at the Foreign Economic Administration before he succeeded Owen Lattimore as chairman of the IPR.

Of these, only Philip Jaffe was pursued by the **Federal Bureau of Investigation (FBI)** as an espionage suspect. Originally, he had been investigated as a key figure in the *Amerasia* investigation, and although indicted in August 1945 with Andrew Roth and Emmanuel S. Larsen, the charges were dropped because the FBI’s copious evidence had come from illegal wiretaps and searches, which could not be used in court. He was later cited for contempt, having pleaded the Fifth Amendment more than a hundred times before the Tydings Committee, but was acquitted in April

1951 and thereafter sought immunity from prosecution, apparently anxious to avoid prosecution for wartime espionage, for which the statute of limitations did not apply. Following his acquittal, the FBI conducted four lengthy interviews with Jaffe, which remain classified, but he did implicate Joseph M. Bernstein as a courier, and Bernstein was to emerge in a VENONA text under the cover name MARQUIS. *See also* UNITED STATES OF AMERICA (USA).

PRINCELINGS. Intelligence operations and illicit procurement programs conducted from **Hong Kong** on behalf of the **People's Liberation Army (PLA)** by members of the families of senior PLA and Chinese Communist Party staff, known as “princelings” are a characteristic of clandestine activities based in the Special Administrative Region since the British withdrawal in July 1997. The princelings typically are enriched by participating in low-risk enterprises that buy equipment in the West that would otherwise require export licenses and then divert the matériel to the mainland. As commercial transactions, these purchases enjoy high profit margins and the protection of the PLA once the goods have reached Hong Kong for transshipment to their ultimate destination. With substantial funds at their disposal, the princelings have no difficulty in recruiting intermediaries in the West willing to engage in the “gray-market.” In the few cases that have come to light by customs and enforcement interdiction, tracing the chain of responsibility beyond Hong Kong invariably proves fruitless but certainly reveals high-level sponsorship and close family ties to PLA cadres.

The princelings are occasionally the subject of investigation by the **Central Discipline Inspection Commission**, the party’s secret anticorruption unit, but in Beijing, they enjoy much of the immunity acquired by the *hong er dai*, the privileged elite, sometimes referred to as the “red second generation” or the “red successors,” who have family links to the party’s past and present leadership.

PROJECT 863. A venture capital company based in Hangzhou, in Zhejiang Province, sponsored by the **Ministry of State Security**, Project 863 provided financial backing for entrepreneurs in the **United States** who developed businesses in the high-technology field, often with military or valuable commercial applications. Several investigations of illicit technology transfer in the United States implicated Project 863 as the

original source of funding for individuals implicated in the illegal export of embargoed equipment and software, among them **Ye Fie**, **Zhong Ming**, **Ge Yuefei**, and Lee Lan.

Originally initiated with political support from **Deng Xiaoping** in March 1983, following public announcements in the West concerning the Strategic Defense Initiative and the 1985 European EUREKA initiative, Project 863 is managed by **People's Liberation Army's (PLA) Commission of Science, Technology and Industry for National Defense (COSTIND)** and the State Science and Technology Commission (SSTC), which was established to supervise research in the six key areas of laser technology, automation, biotechnology, information systems, energy, and new materials. Altogether, 17 major studies were undertaken and funded by 863, independently from the COSTIND and SSTC budgets.

One of Project 863's successes is in the field of integrated circuits, the microelectronic chips upon which all computers depend. In 1993, the People's Republic of China was reliant on foreign sources for up to 80 percent of its supply, but by the end of the eighth Five-Year Plan in 1995, China was able to meet half of its total demand for the circuitry with domestically produced products. Since then, production of integrated circuits has increased at a rate greater than 20 percent per year, with a focus on reducing the cost and weight of microelectronics while increasing the reliability and survivability. Project 863 has also made great progress in the development of very large-scale integrated circuits (VLSIC), which have many military applications, including advanced phased-array radars and space systems.

The PRC's capacity to manufacture sophisticated circuitry has raised the specter of the adoption of altered specifications, and close inspection of some circuit boards integral to the F-16's avionics has revealed potentially damaging alien interference during the production process. This has created the suspicion that the aircraft's electronic systems could be vulnerable to sabotage originating from within its own components.

Another 863 objective was the Shuguang 1000 parallel computer system, an 863-funded scheme that achieved 2.5 billion operations per second in 1985. A more sophisticated parallel supercomputer system, the DAWN series, followed, capable of speeds up to 300 billion calculations per second, with miniaturized versions designed for microcomputers installed

in missiles, launch vehicles, and satellites. *See also* TECHNOLOGY ACQUISITION.

Q

QIAN XUESEN. Sent to the **United States** as a student in 1936, Qian Xuesen (formerly known as Tsien Hsue-shen under the former Wade-Giles Romanization of Chinese names), received his doctorate in physics from Caltech three years later and then moved to Paris to study under Frédéric Joliot-Curie. During World War II, he served in the U.S. Army, working on rocket technology, and reached the rank of colonel. At the end of hostilities, he played a key role in debriefing captured German rocket experts, including Werner von Braun, but upon the outbreak of the **Korean War** in 1950, his security clearance was suspended, and he remained restricted to his home at Caltech until he was deported to China in 1955 in exchange for 11 American airmen captured during the Korean War.

Qian was received as a hero in the People's Republic of China and began to assemble a team of foreign-trained engineers and establish an aerospace research and development organization. In 1956, he drafted a plan closely resembling the U.S. Air Force's *Toward New Horizons* to promote a weapons development program that concentrated on atomic energy, missiles, computer science, semiconductors, electronics, and automation and favored missile research over aircraft production. In February 1956, **Zhou Enlai** approved the establishment of the Ministry of National Defense's **Fifth Academy** and allowed Qian to head a military delegation to Moscow to gain Soviet technical support. He also traveled to Dresden to meet Klaus Fuchs, recently released from prison in England, to receive a briefing on the FAT MAN uranium bomb. As a result, hundreds of experienced Soviet engineers were posted to China and a number of Chinese students were sent to study in the **Soviet Union**. Eventually, 343 contracts and 257 technical projects were sponsored during the period of Sino-Soviet friendship, but the relationship was terminated by Nikita Khrushchev in August 1960.

For the next 20 years, Qian personally supervised research on ballistic and cruise missiles, aerodynamic testing facilities, and satellites and pressed the **Chinese Communist Party (CCP)** to adopt nuclear power. He was the subject of harassment during the **Cultural Revolution** but survived when the Central Committee ruled that the space and missile industry was a

priority. Later he would be associated with the CCP's conservative wing, and in 1977, Qian denounced **Deng Xiaoping** and his faction, which included the **Commission of Science, Technology and Industry for National Defense (COSTIND)** director, Zhang Aiping. Qian's hostility to Deng undermined his authority, but when he changed his stance and supported Deng's suppression of anti-regime protestors in 1989, he recovered his status and saw his protégé, Song Jian, appointed as chairman of the State Science and Technology Commission. As director of the Fifth Academy, he masterminded the programs that produced the Silkworm antiship missile, the Dong Feng ballistic missile, and the first successful launch of a PRC satellite in April 1970.

Qian was appointed to the CCP's Central Committee, and in 1979, Caltech awarded him its distinguished alumni award for his pioneering work in rocket science. In March 1994, Qian persuaded COSTIND to participate in research projects that included remote sensing satellites, hypersonic aerospace planes, adaptive optics, and high-tech communications systems.

In 1999, the **Cox Report**, issued by the U.S. Congress, Qian was labeled as a spy. Widely acknowledged as the father of China's space and missile programs, he died on 31 October 2009 at the age of 98 in China, having never returned to the **United States**. *See also CHINESE NUCLEAR WEAPONS.*

QINGBAO BU. *See MILITARY INTELLIGENCE DEPARTMENT (MID).*

QINGBAO SUO. In the Chinese language, there is no real distinction between "intelligence" and "information" in common usage, and there is no specific term for "intelligence-gathering." *Qingbao suo* refers to "information-gathering," an essential ingredient of the mammoth intelligence gathering effort directed at Western countries. *See also MINISTRY OF STATE SECURITY (MSS).*

R

RB-45C. On 27 January 1954, an RB-45C reconnaissance aircraft escorted by F-86 Sabres was attacked by eight Chinese MiG-15s over the Yellow Sea. One MiG was shot down. Just over a year later, on 5 February 1955, the incident was repeated but with the loss of two MiGs fighters. *See also AIRBORNE COLLECTION; CENTRAL INTELLIGENCE AGENCY (CIA); NATIONAL SECURITY AGENCY (NSA); UNITED STATES OF AMERICA (USA).*

REDBERRY. In 2006, China Unicom began to market a version of the BlackBerry personal digital assistant, which had been developed by Research in Motion, a Canadian company based in Ontario. Known as the RedBerry, the Chinese device appeared to be an almost exact facsimile of the original system.

REDMOND, HUGH F. On 26 April 1951, a **Central Intelligence Agency (CIA)** officer under non-official cover (NOC) was arrested in **Shanghai**, masquerading as a representative of Henningsen and Company, a food import and export company based in **Hong Kong**. A former D-Day paratrooper with the 101st Airborne Division, Redmond's cover was backstopped in the British colony, and it was the responsibility of the local British **Secret Intelligence Service** station to ensure that it was maintained without revealing his true role. Nineteen years later, Redmond died in a Chinese prison, still protesting his innocence.

Redmond enlisted in the U.S. Army in July 1941 and fought in Normandy and Arnhem in 1944 before being wounded during the Battle of the Bulge in January 1945. When he was discharged in October 1945, he had been decorated with the Silver Star, a Bronze Star with Oak Leaf Clusters, and a Purple Heart. In July 1946, he had been enrolled in the War Department's Strategic Services Unit (SSU), a clandestine organization headed by Colonel John Magruder, an **Office of Strategic Services (OSS)** veteran, and posted to Shanghai, where he had married a White Russian piano teacher named Lydia. Having arranged for her to leave China, Redmond had been arrested as he had attempted to board a troopship, the USS

General W H Gordon, one of dozens of Americans, mainly missionaries, who were detained during the early years of the Communist revolution.

By then, the SSU had been absorbed into the Central Intelligence Group (CIG), which had been created in January 1946 and later became the foundation of the CIA in 1947, but nothing was heard about Redmond's incarceration until a fellow inmate at the notorious Ward Road Gaol was released to Hong Kong in July 1952. Further news emerged in March 1953, when a German prisoner was interviewed, and in April 1954, a French priest, Alberto Palacios, reported having shared his cell in Shanghai's Rue Massenet prison. Then, five months later, in September 1954, Shanghai's Military Control Committee announced that Redmond, having been linked to a spy ring that had been set up by OSS, had been convicted of espionage and sentenced to life imprisonment. Allegedly, the Chinese authorities had seized a large amount of incriminating material, including 16 codebooks, 6 bottles of an ingredient for developing secret ink, hundreds of compromising documents, and a suitcase with a hidden compartment. Also convicted were five other men and two women, of whom Wang Ko-yi and Lo Shih-hsiang were executed in front of Redmond.

By the end of 1955, 28 of the 41 Americans in Chinese custody had been released, but the State Department seemed reluctant to make representations on behalf of Redmond's family. In January 1958, his mother, Ruth, was allowed a brief visit to his prison, a meeting arranged by the Red Cross and reported by the *New York Times*. Thereafter, they exchanged letters each month, and she made two further visits, in October 1962 and October 1963, but failing health prevented her from making further journeys. In 1968, the CIA, while maintaining the pretence that Redmond was simply an innocent businessman, arranged for an intermediary to pretend that a fund of \$1 million had been accumulated from donations made by well-wishers and attempted to open ransom negotiations with Chinese diplomats, but nothing happened. Finally, in July 1970, Beijing announced that on 13 April 1970 Redmond had died after having severed an artery in his arm with a razor. His body had been cremated, and his ashes were handed over to the American Red Cross for burial in his native town, Yonkers, New York. See also TROPIC; UNITED STATES OF AMERICA (USA).

REGAN, BRIAN P. A year after taking up his post as a contractor for the National Reconnaissance Office, former U.S. Air Force Sergeant Brian P. Regan was arrested at Dulles Airport as he attempted to board a Swissair

flight for Zurich. The 40-year-old Regan had left the Air Force in August 2000, but the father of four had accumulated debts of \$116,000 when he approached diplomats representing the People's Republic of China, Iraq, and Libya with an offer to sell them classified information for \$13 million. He was arrested in August 2001 and was sentenced to life imprisonment without parole in February 2003 after some 10,000 documents and a collection of CDs had been recovered from caches buried in Virginia and Maryland. *See also* AIRBORNE COLLECTION; NATIONAL SECURITY AGENCY (NSA); UNITED STATES OF AMERICA (USA).

REPUBLIC OF CHINA (ROC). *See* TAIWAN.

RESHETIN, IGOR. In October 2005, a Russian academic, Igor Reshetin, was arrested by the Federalnaya Sluzhba Bezopasnosti (FSB) security service and charged with two other members of TsNIIMASh Export, Sergei Tverdokhlebov and Aleksandr Rozhkin, with evading export regulations and smuggling dual-use technology to the People's Republic of China. Based near the Korolyov cosmodrome, TsNIIMASh is a state-owned aerospace technology company. In December 2007, all three defendants were sentenced to between 5 and 11 years' imprisonment. *See also* TECHNOLOGY ACQUISITION.

REVOLUTIONARY UNION. An doctrinal split within the Communist Party of the United States of America in 1966 led to the expulsion of a radical Maoist, Leibel Bergman, who then spent two years in the People's Republic of China (PRC) and returned to found a new organization, the Revolutionary Union, which, according to the **Federal Bureau of Investigation (FBI)**, ultimately in September 1970 would recruit an estimated 350 members, mainly from the Weather Underground and Black Panthers, and be committed to urban guerrilla warfare and the violent overthrow of the **United States** government. Using his son Lincoln and daughter-in-law Arlene, a leader of the notorious Venceremos Brigade, Bergman drew adherents from Students for a Democratic Society (SDS), the Progressive Labor Party, the Worker-Student Alliance, and the Third World Liberation Front, all New Left extremist groups, and maintained contact with Chinese intelligence personnel through the PRC embassy in Paris and the new diplomatic mission in Ottawa, which opened in October 1971. Bergman's clandestine network, with headquarters in San Francisco,

was penetrated by a pair of FBI undercover agents, Betty and Lawrence Goff, who joined in San Jose, California, in 1969, but testified before Congress in October 1971.

Other American political radicals known to have been supported by the PRC included Chris Milton of the SDS, whose father had been a missionary in **Shanghai**, and Robert F. Williams, the self-styled president of the “Republic of New Africa,” who sought asylum in Beijing for three years, from 1966, when he was a fugitive facing kidnapping charges, but continued to distribute the Maoist propaganda tract *The Crusader*. According to the FBI, China’s covert support for the black revolutionary movement lapsed soon after a month-long visit to Beijing in March 1972 by the Black Panthers Raymond Hewitt and Emory Douglas, who had been accompanied by Dr. Tolbert Small and National Lawyers Guild members Allen Brotsky and Charles Garry. *See also* SINO-SOVIET SPLIT.

RIO TINTO ZINC (RTZ). In July 2009, Stern Hu, the **Australian** head of Rio Tinto Zinc’s (RTZ) iron ore sales, and three of his colleagues were taken into custody in Beijing and accused of bribery and economic espionage. According to the prosecutors, the mining company had bribed the directors of 16 of the People’s Republic of China’s (PRC) steel mills, and its computers had been found to contain confidential information concerning annual commercial negotiations, which were described as “state secrets.” Also arrested were Wang Hongjiu, the director of shipping at the Laigang Group, and Tan Yixin, an executive of the Shougang Group, both accused of leaking classified material to Stern Hu.

The episode followed the conviction of Chen Tonghai, the former chairman of Sinopec, the PRC’s second-largest oil company, who was given a death sentence for corruption. Aged 60, Chen’s sentence was suspended for two years to enable him to appeal and to cooperate with investigators. In March 2010, Stern Hu pleaded guilty to charges of bribery and was sentenced to 10 years’ imprisonment. *See also* INDUSTRIAL ESPIONAGE.

ROTH, JOHN REECE. On 3 September 2008, a federal jury convicted a 72-year-old retired University of Tennessee professor, Dr. John Reece Roth, of illegally exporting military technical information, acquired from a U.S. Air Force research contract, to the People’s Republic of China (PRC). The data related to plasma technology designed for the wings of drones

operating as weapons or surveillance systems, and he had been charged with conspiring with Atmospheric Glow Company, a technology company based in Knoxville, Tennessee, to unlawfully export 15 different “defense articles” to a PRC citizen in 2005 and 2006.

According to the prosecution, Dr. Roth used Chinese graduate research assistants and wire transmissions to pass the information and, in 2006, made a lecture tour in the PRC, where he also delivered more sensitive technical data controlled by the Arms Export Control Act. Roth was sentenced to 48 months’ imprisonment and died in London in 2010. *See also* TECHNOLOGY ACQUISITION; UNITED STATES OF AMERICA (USA).

ROYAL HONG KONG POLICE (RHKP). Granted its royal status following exceptional bravery shown by officers of all ranks during the 1967 Communist-inspired rioting, the Hong Kong Police was staffed by a British officer corps but trod a delicate line between the interests of the governor and the colonial authorities, accommodating a tolerable level of crime and corruption among the local Chinese. Well aware that the mainland exercised indirect control over most of the territory by possession of its food and water supply, the police maintained order but took precautions not to offend Beijing.

The **Special Branch** represented an elite division of the Criminal Investigation Division and was transformed in 1949 by the arrival of a large group of British police officers, who were recruited by Director Special Branch (DSB), Deputy Commissioner Peter Erwin, to replace veterans of the prewar **Shanghai** Settlements police. Because of endemic, low-level corruption within the rest of the force, the Special Branch undertook anticorruption and anti-Triad investigations, as well as running more conventional intelligence and counter-subversion operations. The Special Branch became a highly professional security apparatus when (Sir) John Prendergast was appointed DSB in 1960. Hitherto, successive DSBs had rotated through other HKP divisions, but Prendergast retained key personnel so some officers spent much of their career inside Special Branch. With previous Special Branch experience in Palestine, the Suez Canal zone, Kenya, and Cyprus, Prendergast transformed the organization, employed external contractors to undertake sensitive surveillance duties, established a large analytical section, and accepted temporary personnel on

secondment from military intelligence, MI5, and the Secret Intelligence Service (SIS).

On Prendergast's initiative, subsequent DSBs, who included Brian Slevin (1966–69), Christopher Dawson (1970–71), Richard Richardson (1972–78), James Morrin (1979–84), and finally John Thorpe (1992–97), liaised closely with the local representatives of the Allied liaison services, both formally and informally, by hosting meetings each fortnight, one attended by the MI5 security liaison officer, the Federal Bureau of Investigation's legal attaché, the Australian Security Intelligence Organisation officer, and the Royal Canadian Mounted Security Service officer. The alternate event was for the SIS station commander, the Central Intelligence Agency (CIA) station chief, and the Australian Secret Intelligence Service representative. Other liaison relationships included representatives of the Malaysian Special Branch, the Singapore Intelligence Service, the South Koreans, the Japanese, and the Indonesians.

The Special Branch's targets, apart from the Chinese Communists, were the Nationalists and the Soviets. Although the latter were never allowed to establish formal diplomatic representation in the colony, the KGB and GRU operated under journalistic and trade covers. As for the Kuomintang (KMT), their involvement in the destruction of an Air India Constellation, the *Kashmir Princess*, on 11 April 1955, en route for the Bandung Conference, resulted in a major and very successful Special Branch investigation using accurate information supplied by the Communists who, in HKPSB parlance, were known as CHIS, an acronym for the Chinese Intelligence Service. The KMT was known as KIS, or the Kuomintang Intelligence Service.

Another preoccupation were groups of saboteurs, thought to have been trained by the CIA in Okinawa; although, usually they showed no interest in crossing the frontier, and those that were not betrayed by moles dropped from sight to spend their funds.

Accommodated on three floors of the police headquarters, the DSB's staff also occupied numerous other buildings and safe houses across the colony and ran technical and human penetration operations against the Federation of Trade Unions, the Communist front controlled from Beijing. Their premises were raided by Special Branch at the height of the 1967 riots, and the information recovered resulted in an accurate prediction that the unrest would cease by the end of the year. Because of the unique nature of the

British administration of Hong Kong, which was essentially an autocracy headed by the governor, the DSB enjoyed very wide powers and was only accountable to His Excellency. Accordingly, the DSB was free to exercise considerable discretion in running operations and invariably deported or refused entry to individuals considered undesirable by Special Branch. When Michael Hanley, a former SLO, was appointed MI5's director general in 1971, he authorized the DSB to attend the Commonwealth Security conference, the first time that a colonial Special Branch had attended such a gathering and in spite of objections from SIS.

The RHKP eventually fell prey to internal corruption and, in 1973, became the target for a new institution, the Independent Commission against Corruption, which, led by John Prendergast, recently returned from heading the security apparatus in Aden, pursued some of the abuses, perhaps the most serious of which was the case of Chief Superintendent Peter Godber, a former Special Branch officer who had been decorated for bravery during the 1967 riots.

The RHKP's Special Branch gained more experience of Chinese espionage than any other Allied intelligence service but limited its activities to maintaining surveillance on suspects rather than running offensive operations that might embarrass Beijing. As the 1997 hand-over date approached, the organization became less aggressive as a counterintelligence apparatus, and eventually the entire structure was dismantled, its large civilian staff resettled across the British Commonwealth, and the files removed to beyond the reach of the new Chinese administration. *See also* GREAT BRITAIN; TSANG, JOHN.

ROYAL TOURIST. The **Federal Bureau of Investigation** used the codename ROYAL TOURIST for the Los Alamos physicist Dr. **Peter Lee**. *See also* UNITED STATES OF AMERICA (USA).

RUSSIA. While little is known of the operations conducted by the Sluzhba Vnezhney Razvedki (SVR) against Chinese targets, there have been several cases publicized by the Federalnaya Sluzhba Bezopasnosti (FSB) of Russians accused of spying for the People's Republic of China (PRC). In December 2007, **Igor Reshetin** was convicted of espionage for the **Ministry of State Security (MSS)**, and in September 2010, two scientists at the Baltic State Technical University in St. Petersburg were charged with

passing information to China. *See also* SHANGHAI COOPERATION ORGANIZATION (SCO); SOVIET UNION.

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SECOND DEPARTMENT (2/PLA). The principal organization within the **General Staff Department** of the **People's Liberation Army's (GSD/PLA)**, the Second Department is also known as the **Military Intelligence Department / People's Liberation Army** and is responsible for the collection of intelligence. The Second Department, or *Zongcan Erbu*, deploys military attachés abroad to embassies, conducts human intelligence and signals intelligence operations, and includes the Analysis Bureau that runs the National Watch Center and the **China Institutes of Contemporary International Relations**. Second Department personnel are posted overseas under various covers, including correspondents for the **New China News Agency (Xinhua)** and the *People's Daily* and the *China Youth Daily*.

Subordinate to the Second Department is the **First Bureau**, focused on **Taiwan** and **Hong Kong**. *See also* AUTUMN ORCHID; MINISTRY OF STATE SECURITY (MSS).

SECRET INTELLIGENCE SERVICE (SIS). Not considered an intelligence priority by SIS until the 1902 Anglo-Japanese Alliance lapsed in 1923, collection operations in the Far East region were left largely to the Admiralty's Naval Intelligence Division, especially during the period of financial stringency that followed the British government's 1920 budget that cut SIS's expenditure in the region to £18,200, out of a total of £90,000 for the entire organization, and by 1934, the amount devoted to **Japan** and China amounted to £6,460. The local regional SIS chief, based in **Shanghai**, was Godfrey C. Denham, formerly the deputy director of the Delhi Intelligence Bureau, who had been appointed in December 1920 and remained in the post until he was replaced in 1923 by the local consul, Harry Steptoe.

Code numbered 28000 within SIS, Steptoe was in poor health but pulled off a considerable coup in June 1931, following the arrest of **Hilaire Noulens**, by gaining access to the records of the **Comintern**'s Far East Bureau, but his failure to satisfy London's demand for information about Japan, where there was no SIS post, led to the creation of the **Far East Combined Bureau (FECB)** in **Hong Kong**, where Lieutenant-Commander

Charles Drage, a retired Royal Navy officer who had served on the China Station aboard HMS *Bluebell*, was established. When, in April 1938, the Admiralty complained about the quality of SIS's information from the Far East, the chief, Admiral Hugh Sinclair, retorted that there were 72 agents on SIS's payroll in the Far East, of whom 29 supplied data on the Imperial Japanese Navy. In addition, another SIS officer, Alex Summers, was based in the colony, with responsibility for an area that covered southern China, Formosa, and French Indochina. In 1939, the FECB was transferred to Singapore, where the SIS station was headed by Major J. H. Green, who liaised closely with his French and Dutch colonial counterparts and was joined in the summer of 1940 by Drage. In February 1941, Godfrey Denham returned to SIS as regional director with the code number 69000.

Supported only by a subordinate station in Peking, headed by Frank Liot Hill, working on military activity in northern China, Steptoe continued to concentrate on Chinese political intelligence until 1940, when W. Gordon Harmon was established under press attaché cover at the embassy in Chung-king. However, SIS operations in the north of the country effectively ceased in early 1942, following the fall of Singapore in February, when Steptoe and Hill were interned by the Japanese, later in October to be repatriated in an exchange of diplomats in Mombasa. Fortunately for both men, the Japanese did not appear to realize their significance and missed the opportunity to interrogate them. Summers was not so lucky and remained in captivity in Stanley Camp for the remainder of the war.

Meanwhile, Gordon Harmon in Chungking established a link with **Zhou Enlai**, who authorized the release of some valuable Japanese signals intelligence, but an attempt to reinsert Frank Hill into Xi'an in 1942 failed, and the **Kuomintang** only allowed him to reach Chengdu, whence he was evacuated before he died of illness in October 1943. Harmon came to rely on the KMT for information, not all of which was reliable, and a review of reporting from China during the first 10 months of 1943 revealed that of a total of 119 reports, 34 had originated with Special Operations Executive, which had developed a relationship with the KMT's Resources Investigation Institute, and 21 from American diplomats. SIS's principal independent source appeared to be from an Estonian, Colonel Richard Maasing, who was in contact with the Japanese military attaché in Stockholm, Lieutenant-General Makoto Onodera. Only seven reports came from Harmon, of which two had been dismissed as simply expressions of

opinion. However, by 1944, the situation had improved dramatically, with 566 reports delivered from 10 stations, of which the largest were at Kunming, Nanping, and Changping, employing a staff of 41. Twenty of these personnel were case officers who handled more than 400 separate sources, some of them in the Maritime Customs and the Salt Gabelle tax authority. A coast-watching service was based at Wenzhou, keeping an eye on Japanese shipping in Amoy, and SIS ran a junk equipped with a transmitter in December 1944 from Foochow.

During the war, SIS conducted clandestine intelligence-collection operations from Singapore, Kuala Lumpur, and then Delhi under **Inter-Services Liaison Department (ISLD)** cover, a semitransparent organization that stretched across the Far East and was headed first by Wing Commander Pile, later succeeded by Major Rosher, who had been ISLD's representative briefly in Hong Kong, and then by Godfrey Denham. During the war, ISLD's principal contribution was to infiltrate teams equipped with wireless transmitters into Japanese-occupied territory, as exemplified by Sergeant John Cross, but in strategic terms they accomplished little at considerable cost in human and technical resources. Cross later described his experiences, for which he was decorated with the Distinguished Service Medal, in *Red Jungle*.

By the end of hostilities, SIS had expanded its presence on mainland China with stations at Tientsin, Ürümqi, Shanghai, and Nanking but was heavily dependent on the Nationalists for liaison reporting. No stay-behind networks had been created in anticipation of the Communist takeover, and the stations that were overrun were not allowed to transmit or send encrypted cables. The KMT's offer to supply SIS with all it required, for £3,000 a month, was accepted, and a collaboration, codenamed SALVAGE, began from headquarters in Hong Kong and **Taiwan**, which supposedly were in radio contact with a clandestine Nationalist network across southern China. Doubts soon emerged about the authenticity of the SALVAGE product, and the arrangement was terminated.

In the postwar era, SIS established a headquarters in Singapore under **Combined Intelligence Far East** cover to conduct operations against Communist influence in the region, concentrating on Malaya, Hong Kong, and Indonesia, supervised by the Far East Controllerate at headquarters in London. SIS personnel in Hong Kong operated under military liaison cover,

and they included Andrew King, Ellis Morgan, Barrie Gane, Jimmie James, Brian Stewart, Stephen Longrigg, Nigel Inkster, and Gordon Barrass.

Within SIS, which traditionally has been staffed by generalists rather than specialists, there has always been an element of separation between the Soviet watchers and the Far East hands. As an example of the latter group, **Richard Evans** spent much of his career as a China watcher.

SECURITY LIAISON OFFICER (SLO). Overseas representatives of the British Security Service (**MI5**) are known as security liaison officers and traditionally have been attached with diplomatic status to high commissions in Commonwealth countries, but in **Hong Kong**, the SLO was assigned to the governor's staff and acted as an adviser to the **Special Branch** and a conduit to MI5's headquarters in London, working closely with the local **Secret Intelligence Service (SIS)** station, which operated under military cover. The first postwar SLO was Major H. E. Wilson, who temporarily headed the SIS station under **Inter-Service Liaison Department** cover. Two SLOs in Hong Kong, (Sir) Michael Hanley and (Sir) John Jones, would later become MI5 directors general.

SENIOR BOWL. A **Central Intelligence Agency** operation to monitor activity at the Lop Nor test site by deploying D-21 drones dropped from B-52H bombers outside the PRC's airspace west of the Philippines was codenamed SENIOR BOWL. The unmanned, ramjet-powered 44-foot aircraft overflowed the target area flying at Mach 3.3 at 80,000 feet and then returned over the ocean where the waterproof camera and film capsule would be ejected with a parachute to be snagged by a specially adapted C-130 in a complex airborne procedure codenamed TAGBOARD. At a predetermined height, an explosive charge would then destroy the D-21, leaving no trace of the incursion. Although Chinese radar did detect some of the SENIOR BOWL incursions, which began in November 1969, they mistook them for SR-71 **Blackbird** missions and issued diplomatic protests. In 1972, President Richard Nixon undertook to terminate what were described inaccurately as SR-71 overflights, and the remaining D-21s were consigned permanently to David-Monthan Air Force Base in Arizona. By the time SENIOR BOWL was terminated, 50 drones had been built by Lockheed. *See also AIRBORNE COLLECTION; UNITED STATES OF AMERICA (USA).*

SERVICE, JOHN S. Born in Chengtu, Szechwan Province, in 1909, Jack Service attended a school in **Shanghai** until 1924, when he went to the University of California at Berkeley. He joined the State Department in 1935 and served in Beijing and then Shanghai before being appointed a political officer in Chungking in 1941, where he lived with his wife Caroline and their two children. During World War II, Service advocated support for the Communists, condemning **Chiang Kai-shek** as a corrupt warlord. He also attended the first **Chinese Communist Party** Congress in March 1945 but was recalled to Washington DC, where he would be arrested and accused of leaking classified information to a leftist journal, *Amerasia*. He gave evidence to a federal grand jury in August 1945 and was later appointed to a consular post in India.

However, in March 1950, he was summoned before a Loyalty-Security Board to be cross-examined about his alleged Communist sympathies and evidence from the **Federal Bureau of Investigation** that he had passed secrets to *Amerasia*. He was dismissed in December 1951, following an adverse report by the Tydings Committee published in July 1950, together with other “China hands,” among them John Carter Vincent, John Paton Davies, and Oliver Edmund Clubb.

In 1957, following an application to the U.S. Supreme Court, Service was reinstated by the State Department but was denied a security clearance. He then became an academic, being appointed curator of the Center for China Studies Library at Berkeley, and, in 1971, published *The Amerasia Papers*, followed three years later by a collection of his dispatches, *Last Chance in China*. He died in 1999, aged 89. *See also* DIXIE MISSION; UNITED STATES OF AMERICA (USA).

SHADOW NETWORK. In April 2010, U.S. and Canadian computer security researchers at the Munk School of Global Affairs at the University of Toronto published details of how a spy ring in the People’s Republic of China (PRC), termed the Shadow Network, systematically hacked into personal computers in government offices in several continents and in particular, the highest levels of **India**’s Ministry of Defence. The intruders accessed restricted documents that included classified security assessments of the states of Assam, Manipur, Nagaland, and Tripura, as well as the Naxalites and Maoists opposition groups. There was also personal information about a member of the Indian Directorate of General Military Intelligence and evidence that computers at the Indian embassy in Kabul,

Moscow, and Dubai and at the High Commission in Abuja, Nigeria, had been compromised. Confidential embassy documents about India's relationships in West Africa, Russia, and the Middle East, reports on several Indian missile systems, and copies of the Dalai Lama's personal e-mails were also accessed over a period of a year. Furthermore, computer systems used by the Indian Military Engineer Services in Bengdubi, Calcutta, Bangalore, and Jalandhar, the 21 Mountain Artillery Brigade in Assam, three Indian Air Force bases, and two Indian military colleges were also penetrated.

Other compromised material included details of North Atlantic Treaty Organization (NATO) movements in Afghanistan, and during a study lasting eight months, the researchers monitored the PRC intruders hacking into the computers of various Indian government agencies and then alerted the authorities in New Delhi. The Shadow Network was believed to be an offshoot of the **GhostNet** operation but was considered much more sophisticated and difficult to detect. Although it gave the appearance of being conducted by criminals based in Sichuan Province, researchers noted the ease with which the origins of such attacks can be masked and that Chengdu was the site of a **People's Liberation Army** technical reconnaissance bureau that financed the University of Electronic Science and Technology's research on computer network defense. Specifically, the researchers recovered documents classified at the "secret," "restricted," and "confidential" levels and included information from a member of the National Security Council Secretariat concerning Indian security situations.

Ye Lao, a PRC official in Chengdu, said that "it's ridiculous" to suggest the Chinese government had a hand in the hacking of the Indian computers and added, "The Chinese government considers hacking a cancer to the whole society."

SHAN YANMING. In September 2002, the **Federal Bureau of Investigation (FBI)** arrested 32-year-old Shan Yanming of Daqing as he attempted to board a flight to the PRC and charged him with gaining unauthorized access to the computers of a Silicon Valley business where he was employed.

Shan also worked for Daqing Oil, a division of China's state-owned PetroChina, which arranged for Shan to travel to Mountain View, California, for training with 3DGeo Development on software used to support oil and natural gas surveys. Shan was learning to operate the

company's seismic-imaging software, which depended on proprietary algorithms to sift through seismic data and locate oil deposits. A company official later stated his employees "were keeping an eye on" Shan because, two years earlier, another PetroChina employee had been found to have entered the company's offices on a weekend and accessed its computer network without permission.

Earlier, in September 2002, another 3DGeo employee had discovered that Shan had transferred the company's most precious software source code from the network to his own computer, and these data were later found on Shan's laptop. He was confronted about the illicit transfers and arrested a week later as he tried to flee the country. When the FBI examined his laptop, a password-breaking program was found, named Crack, which was designed to gain unauthorized access to computer networks. The FBI also established that when a group of company officials from the PRC had visited Shan several weeks earlier, one of them had brought him a detachable data storage device.

PetroChina subsequently assured 3DGeo that the company had no knowledge of Shan's attempt to steal secrets, but on 7 July 2004, Shan pleaded guilty in federal court to a one-count indictment charging him with gaining unauthorized access to 3DGeo computers to fraudulently obtain proprietary software programs and source code. *See also* UNITED STATES OF AMERICA (USA).

SHANGHAI. The International Settlement of Shanghai, created in 1854, following the 1844 Treaty of Nanking that ended the first Opium War, established British and French enclaves, known as concessions, outside the city walls, which came under the control of a municipal council run by international businessmen, with its own Shanghai Municipal Police, supervised by the British. The Municipal Police's counterespionage branch was the **Special Branch**, headed by Harry Steptoe, a Japanese-speaking British **Secret Intelligence Service** officer.

Following the Bolshevik Revolution in 1917, an increasing number of Russian refugees settled in Harbin and Shanghai, and they were followed during the 1930s by a large flow of Jews fleeing persecution in **Germany**. The International Settlements also attracted numerous intelligence professionals, such as **Richard Sorge**, **Ursula Kaczynski**, and **Agnes Smedley**, and accommodated the **Comintern**'s Far East Bureau. As German influence waned after 1916, the **Japanese** exercised increasing

local influence until Imperial troops invaded Manchuria in 1937 and then occupied the whole of Shanghai in December 1941.

In April 1938, General Chang Tso-lin, chief of the Second Department of the **Chinese Communist Party**'s Military Committee, suggested direct liaison with the NKVD, and an agreement was made for the exchange of information, with the Chinese providing details of White emigrants, foreigners, and Trotskyites in return for lists of known Japanese agents. The Chinese were also to share captured Japanese codes so communications could be decoded in Moscow and the contents shared. The result of this collaboration was the establishment of a joint office, linking the NKVD's local *rezidentura* with a legal and one illegal Chinese counterpart.

The new joint office consisted of the First Department, engaged in the management of an intelligence network, personnel training, and study of operational techniques; the Second Department was the intelligence branch that processed agent reports; and the Third Department was administrative. According to the NKVD's official history, the joint office's annual cost of \$20,000 was met equally by the two parties.

In May 1938, the Seventh Department of the NKVD's Foreign Intelligence Directorate appointed two GRU officers, and by the end of the year, the relationship had flourished to the point that the Chinese had created seven illegal *rezidenturas*, linked to each other by radio and couriers, operating actively in Ningsia, Hangchou, Tientsin, and **Hong Kong**, with some additional information coming from *rezidenturas* in Peking, Tsingtao, and Tsinan. The priorities were details of Japanese troop movements, mobilization plans, and threats of air raids on Chinese cities.

The NKVD came to take a poor view of Chinese organization, agent training, and operational security and complained that the Chinese had attempted to recruit Soviet joint office personnel. Nevertheless, the Soviets provided training in secret writing methods, cipher systems, direction-finding equipment, and other technical support and, in return, received a flow of military, political, and economic intelligence.

As well as intensive Soviet activity in Shanghai, the city also accommodated the U.S. Navy's first signals intelligence collection site on foreign shores. A clandestine intercept facility was established in 1924 to monitor Japanese Imperial Navy wireless traffic in tandem with another station aboard the cruiser USS *Huron*, but further sites were opened at Wailupe, Hawaii, in 1925 and then in Peking in 1927. The Shanghai station

was reinforced in 1927 by the arrival of a cargo ship, the USS *General Alava*, which was withdrawn in March 1929, and then was designated Station A and linked to Office of Naval Intelligence facilities at Cavite and Guam. After much success, including with **Japan**'s diplomatic traffic, Station A was closed in December 1940 and transferred to the Philippines.

During World War II, Shanghai retained its reputation as a center of espionage, and the U.S. **Federal Bureau of Investigation** came across several cases in 1941 where Nazi spies on missions to the **United States** had been supplied with cover addresses in Shanghai as a means of communicating with their Abwehr controllers in Hamburg. More recently, with the city's transformation as a major hub of global commerce, Western tourists and businessmen have reported incidents that indicate the presence of an active and vigilant **Ministry of Public Security** apparatus. *See also* AIRBORNE COLLECTION; ARMED FORCES SECURITY AGENCY (AFSA); ANUBIS; *BANNER*, USS; BLACKBIRD; CENTRAL BUREAU 610; CENTRAL DISCIPLINE INSPECTION COMMISSION (CDIC); CENTRAL INTELLIGENCE AGENCY (CIA); CHIANG CHING-KUO; CHIN, LARRY WU-TAI; CHINA ACADEMY OF ENGINEERING PHYSICS (CAEP); CHINA AEROSPACE CORPORATION (CAC); CHINESE SIGNALS INTELLIGENCE; COLLECTIVE SECURITY TREATY ORGANIZATION (CSTO); COMINTERN; DENG; EWERT, ARTHUR; FARRELL, FRANK; FOURTH DEPARTMENT; GREAT BRITAIN; HALPERN, ERIC; HANSON, HAROLD DEWITT; HINTON, JOAN; HONEYTRAP; HUTCHINSON, MILTON; ILLEGALS; INDUSTRIAL ESPIONAGE; KAZAKHSTAN; KOREAN WAR; KYRGYZSTAN; LEE, DAVID YEN; LEE, SAM CHING SHENG; MALAYAN PEOPLES' ANTI-JAPANESE ARMY (MPAJA); MAO ZEDONG; MASK; MI5; MINISTRY OF ELECTRONICS INDUSTRY (MEI); NATIONAL SECURITY BUREAU (NSB); NEEDHAM, JOSEPH; NOULENS, HILAIRE; PEOPLE'S LIBERATION ARMY AIR FORCE (PLAAF); *POSEIDON*, HMS; REDMOND, HUGH F.; REVOLUTIONARY UNION; ROYAL HONG KONG POLICE (RHKP); SECRET INTELLIGENCE SERVICE (SIS); SERVICE, JOHN S.; SHRIVER, GLENN D.; SMEDLEY, AGNES; SOONG, CHARLIE; SOUTH KOREA; SOVIET UNION; SPECIAL BRANCH; WORTON, WILLIAM A.; WU SHU-TUNG; XIONG XIANGHUI; YU QIANGSHENG; ZHU CHENZHI; ZIELONKA, STEFAN.

SHANGHAI COOPERATION ORGANIZATION (SCO). Created in 1996 by the People’s Republic of China (PRC), **Russia**, **Kazakhstan**, **Kyrgyzstan**, and **Tajikistan**, and originally known as “the Shanghai Five,” the SCO established a 100-kilometer border zone in the member states in which military information and intelligence would be exchanged freely in an effort to reduce regional tension. Three years later, further protocols were added to the SCO to embrace counterterrorism operations, measures for the suppression of separatist movements and mutual anti-drug-smuggling operations. Then, in June 2001, **Uzbekistan** joined the group, with **Iran**, **India**, **Pakistan**, and Mongolia accepting observer status. Although intended as a forum for the exchange of intelligence and the mounting of joint military exercises, the SCO is thought by Western analysts to have strengthened bilateral relations among the member states but to have failed to eliminate mutual Sino-Russian suspicions or to provide a reliable channel for passing intelligence on sensitive issues, such as nuclear installations.

Attempts by the PRC to develop the SCO into a free-trade area have been opposed by Russia, which has also declined to participate in joint military exercises conducted with the **People’s Liberation Army**. Furthermore, the Kremlin remains suspicious that the SCO has been manipulated by the PRC to improve its access to regional oil and gas reserves, citing Chinese investment in two major pipelines. The Kazakhstan-China pipeline controlled by the China National Petroleum Corporation pumps oil 3,000 kilometers from the Caspian Sea to **Xinjiang**, and the Central Asia Gas Pipeline, a joint project with Kazakhstan’s KazMunaiGaz, sends natural gas on a route from Turkmenistan through Uzbekistan and Kazakhstan to the PRC. Whereas the old pipelines were aligned on a north-south axis, sending energy into Soviet Russia, the new alignment is intended to benefit Beijing.

In 2004, the SCO adopted a special counterterrorism center, the Regional Anti-Terrorist Structure (RATS), headed by a deputy director of the Russian Federalnaya Sluzhba Bezopasnosti (FSB) security apparatus, to simplify the detention and extradition of terrorist suspects between participating states. Hitherto, the RATS system had been used by the FSB to facilitate access to suspects deemed extremists who had been granted refugee status in a neighboring country, their names having been added to a common database. Under the terms of the SCO’s convention on privileges and immunities, RATS personnel and their bases are given diplomatic status, and these rights

were exercised in 2008 when a **Uighur** imam, Huseyincan Celil, who held a Canadian passport, was deported from Uzbekistan to the PRC. Similarly, using the RATS in 2007, Russia began to deport **Falun Gong** supporters to the PRC, among them Ma Hui, a United Nations mandated refugee, and Gao Chuman, who were escorted across the border in March and May respectively.

In 2005, the SCO applied Chinese-inspired pressure on the Uzbek and Kyrgyz governments to terminate U.S. Air Force leases on local bases, which led to the closure of the American facility in Uzbekistan. *See also* COLLECTIVE SECURITY TREATY ORGANIZATION (CSTO).

SHEN JIAN. One of **Kang Sheng**'s most trusted subordinates, Shen Jian was based in Havana in October 1962 and was entrusted by the Cubans with an unexploded U.S. Air Force missile so the PRC could reverse engineer it. Highly regarded in Beijing, Shen was consulted by **Zhou Enlai** in 1973, when **Mao Zedong** was suspicious of Henry Kissinger's discreet approach to normalize Sino-American relations. Reportedly, Shen was able to verify that the approach was real enough by checking with **Larry Wu-tai Chin**.

Shen's wife, Xiong Xianhui, was a former head of the English Department at the Beijing **International Relations Institute**, who had been responsible for monitoring Kissinger when he first went to China. She spoke excellent English, having attended Smith College in the **United States** before the revolution.

SHENZHEN DONJIN COMMUNICATION COMPANY. In August 2007, the Intel Corporation filed a lawsuit against the Shenzhen Donjin Communication Company Limited, claiming that the Chinese firm had stolen its proprietary technology. *See also* UNITED STATES OF AMERICA (USA).

SHESU LO, ROLAND. In 1986, a Chinese American from Los Angeles, Roland Shesu Lo, was arrested in China and sentenced to 12 years' imprisonment for espionage allegedly conducted between 1984 and 1985. A former Taiwanese intelligence officer who had immigrated to the **United States** in 1980, Shesu Lo was the first American citizen to be charged with espionage since full diplomatic relations had been established. *See also* NATIONAL SECURITY BUREAU (NSB); TAIWAN.

SHIMRAY, ANTHONY. An international arms dealer based in Bangkok, Anthony Shimray was arrested in Bihar in September 2010 when he strayed across Nepal’s border while visiting Kathmandu. Under interrogation, Shimray revealed that he had acted as an intermediary for NORINCO (*Beifang Gongye*) and China Xinshidai, both weapons manufacturers in the People’s Republic of China (PRC), and had supplied rifles, explosives, and rocket launchers to various insurgent groups in **India**, including the National Socialist Council of Nagalim (NSCN) and the National Democratic Front of Bodoland, usually smuggling them from the Chinese port of Beihai through Bangladesh. He also revealed that, since 2008, the PRC had sponsored an NSCN veteran, Kholose Swu Sumi, as the organization’s permanent representative at Kunming, in Yunnan Province. Reportedly, several senior PRC intelligence officers had told Shimray that their strategy was to subsidize the NSCN as a means of undermining New Delhi’s authority to conduct border negotiations and to collect intelligence about the deployment of Indian military forces in what the NSCN claimed was an autonomous “Greater Nagaland.”

SHRIVER, GLENN D. In June 2010, 28-year-old Glenn Duffie Shriver, who had applied to join the **Central Intelligence Agency (CIA)** three years earlier, was arrested as he attempted to board a plane in Detroit bound for **South Korea**. He was charged with having failed to disclose that, when visiting the People’s Republic of China (PRC), where he had studied in **Shanghai** as an undergraduate, he had met Chinese intelligence personnel and had been paid \$70,000 in three installments by them. In October 2010, Shriver, from Grand Rapids, Michigan, pleaded guilty to a charge of conspiracy to communicate national defense information to a person not entitled to receive it and was sentenced to four years’ imprisonment.

Fluent in Mandarin, Shriver was befriended by three PRC intelligence officers while living in Shanghai in October 2004, having recently graduated from Grand Valley State University in Michigan, and agreed to return to the **United States** and apply for a job in the American intelligence community. In court, he admitted that he had intended to gain access to classified information and then pass it to the PRC. According to his confession, he had met a woman named “Amanda” after he had answered an advertisement in a local English language newspaper seeking scholars of East Asian studies to write articles. He had been paid \$120 for his first contribution, a paper on Sino-U.S. relations in respect to North Korea and

Taiwan, and then had been introduced to a “Mr. Tang” and a “Mr. Wu,” who he would meet more than 20 times in the following years. Even after he had moved to Korea, to teach English, and become engaged to a girl named “Yumi,” he continued to maintain contact with Amanda.

Between 2005 and his arrest, Shriver applied to join the U.S. State Department and the CIA and admitted to having made false statements in December 2009 on a CIA questionnaire, when he claimed not to have had any contact with a foreign government or its representative during the last seven years. He also failed to mention his travel to the PRC in 2007, when he received a \$40,000 cash payment for having submitted his job application.

SHU QUANSHENG. On 7 April 2009, Dr. Shu Quansheng, a 68-year-old naturalized American citizen, was sentenced to 51 months’ imprisonment for illegally exporting space-launch technical data to the People’s Republic of China (PRC) and for offering bribes to Chinese government officials. The scientist was also ordered to pay \$387,000 in restitution.

The president, secretary, and treasurer of AMAC International, a high-tech company located in Newport News, Virginia, with a representative office in Beijing, Shu was arrested on 24 September 2008 and, on 17 November, pleaded guilty to three charges concerning the export of a defense service in violation of the Arms Export Control Act, the export of a defense article, and attempting to bribe a foreign government official in violation of the Foreign Corrupt Practices Act.

According to the prosecution, Shu helped the PRC with the design and development of a cryogenic fueling system for space-launch vehicles based at the **Wenchang Satellite Launch** Center on Hainan Island.

Shu, who had conducted cryogenic research for the U.S. Department of Energy and the National Aeronautics and Space Administration and written 6 books and 100 academic papers, also illegally exported technical data related to the design and manufacture of a 100-M³ liquid hydrogen tank and offered \$189,300 in bribes to officials at the 101 Institute to win, in January 2007, a \$4 million hydrogen liquefier contract for a French company he represented.

According to the Department of Justice, Shu was associated with the **People’s Liberation Army**’s General Armament’s Department, the China Academy of Launch Vehicle Technology’s 101st Research Institute, the Beijing Special Engineering Design Research Institute, and the

Commission of Science, Technology and Industry for National Defense. The prosecution also alleged that, in 2003, Shu had supplied the PRC with a document entitled *Commercial Information, Technical Proposal and Budgetary Officer-Design, Supply, Engineering, Fabrication, Testing and Commissioning of 100-m³ Liquid Hydrogen Tank and Various Special Cryogenic Pumps, Valves, Filters and Instruments*, which contained controlled military technical data. *See also TECHNOLOGY ACQUISITION; UNITED STATES OF AMERICA (USA).*

SIDEWINDER. In May 1996, a joint Royal Canadian Mounted Police and Canadian Security Intelligence Service (CSIS) task force, codenamed SIDEWINDER, conducted a study of Chinese organized crime and intelligence operations and compiled a report entitled *Chinese Intelligence Services and Triad Financial Links in Canada*, which proved highly controversial and was replaced by a document codenamed ECHO. This too was criticized by the Parliamentary Security Intelligence Review Committee, which noted in its 1999–2000 annual report, “As to the first draft of the SIDEWINDER report, we find it very faulty in almost all respects. It departed from standards of professionalism and lacked the most basic analysis.”

SINO-AMERICAN COOPERATIVE ORGANIZATION (SACO). Established in 1942 by a U.S. Navy officer, Commander Milton E. Miles, following the Japanese attack on Pearl Harbor, SACO was headed by the Kuomintang intelligence chief **Tai Li** and staffed by some 3,000 American personnel centered on Chungking. SACO was intended to coordinate Chinese operations against the Japanese and built a signals intercept and direction-finding station outside the city, which was linked by radio to San Diego; although, much of the traffic was sent encrypted over commercial cable carriers direct to Washington DC. Known as Happy Valley and Station F, the site was the first U.S. Navy intercept facility in China and drafted in operators from **Australia** and from Cavite in the Philippines. One of their tasks was to monitor Japanese transmissions from spies reporting on Flying Tiger aircraft taking off from Kunming, and the identification and elimination of these clandestine sets prompted the creation, in November 1943, of a new station at Ningsha in Mongolia. Later, new sites were opened at Kweilin and Nanning, but plans to expand SACO’s activities to a further 17 forward bases were abandoned in August 1945, following the

detonation of the two atomic bombs on **Japan**. *See also* OFFICE OF STRATEGIC SERVICES.

SINO-SOVIET SPLIT. Although **Central Intelligence Agency (CIA)** analysts detected and reported the apparent ideological differences between the Chinese and Soviet Communist parties, wider acceptance of a Sino-Soviet split took several years to be fully acknowledged by **United States** policymakers. The monitoring of public statements and broadcasts from both Beijing and Moscow allowed some interpreters, such as the CIA Directorate of Intelligence's Donald Zagoria, to discern the subtle nuances in policy commentaries that suggested the denunciation in Moscow of Josef Stalin in the February 1956 secret speech at the 20th Party Congress by Nikita Khrushchev had been viewed by **Mao Zedong** as revisionism. In July 1958, Morris Child, a **Federal Bureau of Investigation** informant inside the Communist Party of the United States of America, codenamed SOLO, returned from Moscow with the first hard intelligence that a serious breach had developed between the **Soviet Union** and the PRC.

Some in the CIA were quite ready to accept the assertion of the KGB defector Anatoli Golitsyn, who, following his departure from the *rezidentura* in Helsinki in December 1960, had alleged that the supposed split was part of a wider Kremlin deception intended to mislead the West about the true nature of the Soviet relationship with Mao and even with Josip Broz Tito. Although many of Golitsyn's theories were later discredited, the fact that CIA analysts debated the issue at all is an indication of the paucity of accurate information available from Beijing during that era. Nevertheless, President Dwight D. Eisenhower issued the CIA with a secret directive to exploit and exacerbate internal Communist tensions, encouraging the agency to

create and exploit troublesome problems for International Communism, impair relations between the USSR and Communist China and between them and their satellites, complicate control within the USSR, Communist China and their satellites, and retard the growth of the military and economic potential of the Soviet Bloc.

Proof of the policy schism between Beijing and the Kremlin only emerged following Khrushchev's visit to China in October 1960, when divergent reports circulated concerning nuclear weapons and doctrine relating to the promotion of international Communism rather than peaceful coexistence. Dismayed by Khrushchev's anti-Stalinism and committed to a strategy of

opposing Western colonialism, Mao invited him to Beijing at the end of July 1958 for an unexpected visit lasting three days. Ostensibly, the purpose of the meeting was to discuss a crisis in the Middle East, where the United States had landed troops in Lebanon and **Great Britain** had intervened in Jordan, at a moment when Mao sought to apply pressure on the Quemoy garrison. Although a routine joint communiqué was issued at the visit's conclusion, the ambiguous language employed apparently betrayed a growing division between Soviet and Chinese strategy.

On a further visit, in September 1959, to attend the celebration of the 10th anniversary of the Chinese revolution, Khrushchev made an overt commitment to world peace, rejecting Mao's militancy in favor of trade and aid, and failed to issue the expected bland joint communiqué. Mao had been offended by Khrushchev's trip, without prior consultation, to President Eisenhower in Washington DC earlier in the month and by his lack of support for Chinese pressure on the Nationalists in the **Taiwan** Straits. An incident on the Indian border with Kashmir was engineered to demonstrate China's displeasure, and Khrushchev responded by an oblique attack on Beijing in a speech delivered in Novosibirsk on 10 October, confirming the Soviet Union's commitment to an ideological rather than military struggle with the West, declaring Soviet neutrality on border disputes with **India** and cautioning against "adventurism" in Laos and Korea. When, in December 1959, on the centenary of Stalin's birth, *Pravda* reported on his failures while *Renmin Ribao* described his virtues, the scale of the doctrinal differences between the two parties became more apparent.

The vote taken by the 81 international delegates attending the 22nd Congress on a motion criticizing **Albania**, but actually aimed at Beijing, demonstrated the Kremlin's relative strength, with the Soviets receiving support from virtually all the Communist parties in Europe, the Middle East, and Latin America, whereas the Chinese were backed by all the Asian parties, with the sole exception of Ceylon. Of the 68 speeches reported to have been made by foreign delegates, those from **Canada**, Sweden, Switzerland, Norway, Iceland, Northern Ireland, Luxemburg, Belgium, Denmark, Algeria, Tunisia, Morocco, South Africa, the Dominican Republic, Martinique, and Guadeloupe opposed Albania. Altogether, 44 delegates took Moscow's line, with only 24 refraining.

The CIA's Directorate of Intelligence monitored the deterioration in the relationship between Mao and Khrushchev by careful analysis of the

broadcast and print media, study of public speeches, and subtle changes of nuance in joint communiq  s, combined with reporting from clandestine sources, including some in the Polish Communist Party. *See also* REVOLUTIONARY UNION.

SINO-SOVIET TREATY. Formally known as the Pact of Friendship, Alliance, and Mutual Assistance, the treaty was signed in Moscow on 14 February 1950. The agreement formed the basis of economic aid for Beijing in return for a 10-year lease on the Soviet naval base in Manchuria, the Manchurian railway, and mining rights in **Xinjiang** Province, where there were deposits of valuable minerals, including uranium. However, following his visit to Beijing in June 1959, Nikita Khrushchev terminated the agreement and withdrew all Soviet technicians from the People's Republic of China, thus handicapping many infrastructure projects, including Beijing's secret nuclear weapons research program. *See also* CHINESE NUCLEAR WEAPONS.

SINO-VIETNAMESE WAR. In October 1978, the U.S. **National Security Agency (NSA)** detected the movement of the **People's Liberation Army (PLA)** from garrisons in Kunming toward the Vietnamese border, and within the month, analysts reported that the PLA had accumulated 320,000 troops and 350 aircraft in the area and instituted a special communications link from Beijing to Duyun. When the Vietnamese invaded Cambodia on 4 January 1979, the NSA and the **Australian Defence Signals Directorate** monitored the brief conflict, which eliminated Pol Pot's Khmer Rouge regime in Phnom Penh, and anticipated a Chinese response, which followed at dawn on 17 February, when the PLA overwhelmed Vietnam's northern province and remained in occupation for 29 days. An NSA review of the conflict concluded that radio silence, imposed by both the Vietnamese and the Chinese, had handicapped the agency's ability to provide Washington DC with accurate assessments of the deteriorating military situation in the frontier region. *See also* AIRBORNE COLLECTION; UNITED STATES OF AMERICA (USA).

SIXTH RESEARCH INSTITUTE. The *Kongliusuo*, or Sixth Research Institute, of the **People's Liberation Army Air Force** is the principal Chinese signals intelligence organization and is based in Beijing.

SK-5. The U.S. Navy's designation for the Ryan 147SK unmanned drone, the SK-5, malfunctioned on 10 February 1970 while on a damage assessment mission to North Vietnam. The plane's controller on a Navy E-2 Hawkeye lost contact with the SK-5, which continued to fly until it ran out of fuel and then automatically deployed a parachute to land on Hainan Island. The PLA later claimed to have shot down the aircraft, identifying Qi Deqi and Zhou Zingcheng of the 4th Regiment, Division 8, as the Naval Air Force officers responsible. *See also* AIRBORNE COLLECTION; CENTRAL INTELLIGENCE AGENCY (CIA); UNITED STATES OF AMERICA (USA).

SMEDLEY, AGNES. Always a firebrand revolutionary, Agnes Smedley was from a poor family in Missouri and committed herself to anticolonialism when she met Lala Lajpat Rai, an Indian nationalist at Columbia University in New York in March 1917. Thereafter, she was constantly in the vanguard of campaigns for radical, feminist causes and, in particular, schemes to undermine the British Empire. She was indicted on espionage charges in March 1918 after the arrest of a group of Indian nationalists who had established contact with the German government and had planned to smuggle home weapons and propaganda. She was an active member of the Socialist Party and a regular contributor to its newspaper, the *Call*. After her release from prison, she moved to Berlin, where she continued her close association with Indian nationalists.

In November 1928, she traveled to China as a correspondent for the *Frankfurter Zeitung* and immersed herself in the Chinese revolutionary movement. In her absence, she was tried in the marathon Meerut conspiracy trial, which began in March 1929, following the arrest of the leading members of the outlawed Indian Communist Party. Later the same year, she moved to **Shanghai** and soon afterward became the mistress of **Richard Sorge**, the famous Soviet GRU agent. She introduced Sorge to a Japanese journalist, Ozaki Hotsumi, who was translating her best-selling autobiography, *Daughter of the Earth*, and in 1941, both men were arrested in Japan on espionage charges and executed in 1944. While in Shanghai, Smedley contributed to the Comintern-backed English language newspaper, *Voice of China*, using the pseudonym "R. Knailes," standing for "Rusty Nails."

Between June 1933 and April 1934, Smedley was in the **Soviet Union**, recovering her health and working on her journalism, but by October 1934,

following a brief return to the **United States**, she was reporting for the *Manchester Guardian* from the Sino-Japanese front. For 18 months, she lived among the Communist guerrillas and became close to their leader, **Mao Zedong**. In August 1940, her health failed and she was evacuated by air to **Hong Kong**, where she was placed under house arrest by the British authorities. Having obtained her release, she became a vocal critic of the colony's administration, and in May 1941, she arrived by ship in California. Her account of the war against the Japanese, *Battle Hymn of China*, was published in 1943 and is still regarded as a masterpiece of war reporting, even if the political bias is strident. In July of that year, she entered an artists' retreat, Yaddo, near Saratoga Springs, New York, but continued her political campaigning in support of the Chinese Communists.

By August 1944, Smedley had attracted the attention of the **Federal Bureau of Investigation**; although, her political views had been well known for many years, not least because they had been noted in the report issued in 1938 by the House Committee on Un-American Activities (HCUA), chaired by Martin Dies. In March 1948, she was obliged to leave Yaddo, and early the following year, she was named as a Soviet spy by General Charles Willoughby, the former director of military intelligence in Japan, who had edited a report on the Sorge case, based on the interrogation of his Japanese captors. Willoughby's allegations were given additional weight by testimony of Hede Massing and Whittaker Chambers, who both identified Smedley as a Soviet agent, as well as the confession written for the Japanese by Richard Sorge. Smedley indignantly denied the charges but experienced considerable difficulty in obtaining a renewal of her American passport because the HCUA intended to subpoena her as a witness. Smedley settled for a travel document, limiting her movement to **Great Britain, France**, and Italy and, in December 1949, arrived in London, where she moved in with friends she had made in Hong Kong.

In April 1950, Smedley was admitted to a hospital in Oxford for surgery on the duodenal ulcer that had been responsible for her poor health, but she died on 6 May, the day after her operation. *See also SOVIET UNION.*

SOONG, CHARLIE. In 1879, a 13-year-old stowaway named Han Chao-sun was discovered aboard a U.S. Coastguard cutter. He was promptly renamed Charlie Soong and turned over to a Methodist minister, who sponsored his education in the **United States**. Upon his return to China, Soong married into a wealthy **Shanghai** family with underworld

connections and, within a few years, acquired a considerable fortune. In 1911, he met the young radical, **Sun Yat-sen**, and in 1915, Sun married the second of the Soong daughters, Ching-ling. After Charlie's death in 1919, the youngest daughter, Mei-ling, took up with **Chiang Kai-shek**, and Chiang's marriage into the Soong family smoothed the way for Chiang to take control of the **Kuomintang** Party and of China itself. The oldest daughter, Ai-ling, married one of China's richest men, H. H. Kung. There was a popular Chinese saying about the sisters, "One loved money, one loved power, and one loved China," alluding to Ai-ling, Mei-ling, and Ching-ling, respectively. A brother, T. V. Soong, served as premier, foreign minister, and economic minister. The Soong sisters were known not only for their remarkable beauty but also for being intimate participants in the history of China in the 20th century. The longest surviving sister, Mei-ling, lived to the age of 105, dying in New York in 2003.

SORGE, RICHARD. A charismatic Soviet intelligence officer, Richard Sorge was born in **Germany** in 1895 and graduated from the University of Hamburg. Having served in the Kaiser's army during World War I and married the wife of his economics professor at Aachen, Christiane Gerlach, Sorge moved with her to Moscow in 1924 and, thereafter, undertook numerous military intelligence operations for the GRU, working under his own name as a foreign correspondent for the *Frankfurter Zeitung*. However, Sorge's clandestine life, and his many affairs, did not suit Christiane, who divorced him and immigrated to the **United States**.

While in **Shanghai** for three years, from 1930, Sorge built a spy ring and exercised his considerable personal charm over **Ursula Kuczynski** and the American journalist **Agnes Smedley**, both members of his organization. His activities were placed in jeopardy in 1931 by the arrest of the local **Comintern** representative, **Hilaire Noulens**, who had been informed of Sorge's true role. Sorge was obliged to temporarily suspend operations, and later he would return to Moscow, where he moved in with the beautiful Katchka Maximova, with whom he remained until his next assignment overseas.

In September 1933, Sorge moved to Tokyo and created a large network, which collected valuable information about **Japanese** intentions and transmitted it to Moscow. Sorge himself penetrated the local German embassy and, after the outbreak of war, having gained the trust of the ambassador, was appointed the press attaché. He also acquired a pair of

mistresses, Kiyomi, an exotic dancer at a notorious nightclub, the Fuji Club, and Miyake Hanako, a waitress working at the same establishment, but this led to Kiyomi denouncing her lover to the Kempeitai. When the police went to his home, early in the morning of 18 October 1941, they waited for an hour so as to allow the unidentified owner of a vehicle with diplomatic plates to leave.

Sorge was taken into custody with some 40 other spies and, after a lengthy interrogation, was hanged in November 1944, leaving Hanako to tend his grave. After the war, Kiyomi was shot dead in the street, and her murder went unsolved, but in Moscow, rumors had circulated that at the moment of his arrest, Sorge had been in bed with Helma, the wife of his friend Eugen Ott, the German ambassador, and under interrogation Sorge, had betrayed his entire network.

SOUTH KOREA. The Republic of South Korea has been, and remains, a priority target for the collection of political and military intelligence conducted by the **Ministry of State Security (MSS)**, which also seeks to exercise influence among Seoul's policymakers. Recent evidence of attempts to penetrate Seoul's government include an MSS operation run against South Korea's consulate in **Shanghai** and an attempt, in June 2010, to illegally access a computer system to acquire details of a plan to purchase Global Hawk drones from Northrop Grumman. *See also* KOREAN WAR; LILLEY, JAMES.

SOVIET UNION. In 1921, the foreign intelligence branch of the Soviet Cheka established a *rezidentura* in Peking headed by Aristarkh Rigin using the alias Rilsky, and during his year in China, he organized sub-*rezidenturas* in 10 other cities. He was replaced by Yakov K. Davtyan, the Cheka's first foreign intelligence chief, and in 1925, he was succeeded by his assistant chief, Sergei Velezhev, alias Vedernikov.

Operating independently, but in parallel with the Cheka, was the Soviet military intelligence service, the Glavnoe Razvedyvatel'noe Upravlenie (GRU), or Fourth Department of the Red Army's main intelligence directorate, which in 1923 established a commercial cover in Tientsin, the Far Eastern Trading Company, headed by Abraham Ehrenlieb, who later became such a respected figure in the local émigré community that he was elected president of the Austrian Chamber of Commerce. He would be

succeeded by a Lett, Adam Purpis, who traveled on a passport issued in Honduras.

In 1923, the **Kuomintang (KMT)** leader **Sun Yat-sen** and the Soviet Union's representative, Adolf Ioffe, signed the first Sino-Soviet agreement, and a group of advisers, led by Mikhail Borodin, traveled to Canton (Guangzhou), while a KMT delegation headed by **Chiang Kai-shek** visited Moscow. However, a year later, in September 1924, the Soviets made a separate treaty in Peking, which included a loan of 10 million yuan, the supply of weapons for the People's Revolutionary Army and the provision for three years of 135 military advisers, among them Pavel Pavlov, Vasili Blyukher, and Nikolai Kuibyshev. The Soviets were primarily interested in the White Guards (who had fought the Red Army and then taken refuge in Manchuria, territory then controlled by the pro-Japanese General Zhang Zuolin) and their organizations, the monarchist Bogoyavlensk Brotherhood, the Committee for the Protection of the Rights and Interests of Emigrants, the Musketeers, the Black Ring, and the Blue Ring.

By 1925, the Cheka, now transformed into the Obyedinenoye Gosudarstvennoye Politischekoye Upravlenie (OGPU), operated a *rezidentura* in the **Shanghai** consulate, headed by Yakov Minsky, supported by Rudolf I. Abel and a deputy *rezident*, Leonid Eitingon, alias Leonid A. Naumov. Later, Eitingon would be appointed *rezident* in Harbin in 1927, succeeding Fedor Karin and Vasili Zarubin, and then in Peking. In March 1927, Mikhail Borodin, representing the **Comintern** in Shanghai, attempted to organize a coup against Chiang Kai-shek, but the uprising was crushed on 12 April, and within a fortnight, 25 of the **Chinese Communist Party (CCP)** leadership had been executed. The KMT also seized the Soviet consulate in Peking, confiscating a large quantity of incriminating material, including codebooks, lists of agents, and documents listing recent deliveries of arms to the CCP.

Eitingon's principal source in Harbin was a former Tsarist naval officer, Vyacheslav I. Penkovsky, of the Amur Flotilla, who had been a spy for the Soviets, with his wife, since 1924. Fluent in Mandarin and a graduate of the Petrograd Practical Eastern Academy and the university's legal faculty, Penkovsky had obtained Chinese citizenship and worked in Harbin's high court, where he picked up useful information. Another agent, codenamed OSIPOV, was recruited in 1928 and was a chauffeur in the **Japanese** gendarmerie before he joined the organization's special political section,

which worked against the Soviets. In 1929, OSIPOV, who remained in touch with the *rezidentura* until 1938, planted documents on the Japanese that suggested 20 of their agents had applied to restore their Soviet citizenship, resulting in their immediate elimination by the Japanese.

Another Soviet source was a former *kappelevets* officer, a Chinese Army colonel, who was linked to various Russian émigré groups, including the Brotherhood of Russian Truth, the Squad of Russian Falcons, and Braun. He was responsible for tipping off the *rezidentura* to a bid by Ataman Semenov to form a Cossack division for a future war against the Soviets. According to a report from Karin in 1925 addressed to his OGPU chief Mikhail Trilisser:

The OGPU *rezidentura* in Northern Manchuria with the center in Harbin . . . is working regularly and systematically on the secret opening of diplomatic and other classified mail of a whole series of Japanese institutions. The Japanese General Staff, Japanese military missions in China, Japanese armies in Kwangtung Province (Port Arthur), Korea (Seoul), China (Tianzin), and others entered into the sphere of action of our intelligence.

While Eitingon was the Harbin *rezident*, he learned that Zhang Xieliang, one of Zhang Zuolin's allies and the leader of the Mukden group of "provincial militarists," was collaborating with the Japanese to create an independent Manchurian republic in Manchuria and Inner Mongolia, which was intended to be a Japanese protectorate aligned with Outer Mongolia.

Such plans threatened Soviet interests. Accordingly, Moscow decided, in June 1928, to eliminate Zhang Zuolin by blowing up his private railway carriage, an assassination undertaken by Eitingon and the local illegal *rezident*, Khristofor Salnyn, codenamed GRYSHKA, a crime that resulted in the deaths of 17 other passengers, including General Wu Jiangsheng, and blamed on the Japanese because they had been responsible for guarding the viaduct on the South Manchurian Railway near Mukden (now Shenyang) that was sabotaged with explosives. Eitingon's role as *rezident* ended with his withdrawal following a raid on the Harbin conducted by the Chinese police on 27 May 1929. Exactly two months later, diplomatic relations with the KMT were severed by the Kremlin, forcing a closure of all the illegal *rezidenturas*, except Boris Bogdanov's, which survived in Manchuria until 1931.

After Eitingon's recall, he was appointed *rezident* in Istanbul but was compromised by a defector in June 1930, Georges Agabekov. He then was placed in charge of a specialist unit, recruiting long-term agents in the West,

and traveled twice to California to cultivate Chinese immigrants. After World War II, in late 1946, Eitingon returned to China, to **Xinjiang** Province, to advise the CCP on the suppression of the **Uighur** separatist movement, which was believed to be funded and armed by the KMT and British Intelligence. Under Eitingon's supervision, an experienced NKVD officer, Colonel Nikolai Prokopyuk, organized an armed response to the rebels, and by 1949, the Uighurs had been defeated.

Having collaborated closely with Moscow until the **Sino-Soviet split**, the People's Republic of China's (PRC) modeled its internal security apparatus on the Soviet NKVD (and later KGB), becoming a pervasive, oppressive instrument of the Chinese Communist Party that included the *lao jiao*, the equivalent of the *gulag*, a huge system of penal colonies and reeducation camps into which millions of suspected counterrevolutionaries, spies, and reactionaries disappeared during periodic purges and campaigns. However, whereas the Soviet intelligence structure maintained a substantial presence overseas and established legal *rezidenturas* in diplomatic premises and illegal networks to support espionage, **Mao Zedong** opted for domestic repression and isolationism, with foreign intelligence collection apparently limited to operations conducted against **Taiwan** and military reconnaissance along the **Indian** and Soviet borders.

The Soviet border, some 2,700 miles in length, was a constant source of tension over disputed territory, one focus being Zhenbao Island in the Ussuri River, where, in March 1969, there was a major clash between Soviet border guards and the **People's Liberation Army**. The issues over the frontier were eventually settled in 2004.

Having participated in the creation of a mirror-imaged totalitarian state, Soviet intelligence personnel would themselves be victims of hostile surveillance and harassment in Beijing, with **Stanislav Lunev**, who defected from the GRU *rezidentura* in Washington DC in May 1992, providing the West with a compelling account of Soviet attempts to cultivate sources in the PRC. According to Colonel Konstantin Preobrazhensky, who was an adviser to the KGB's scientific and technical directorate until his retirement in 1991, he attempted to recruit Chinese scholars while he was based at the Tokyo *rezidentura* between 1980 and 1985, under TASS journalistic cover, but achieved little success. He claimed that most of the KGB's operations directed against the PRC were conducted from Mongolia, where the local Ministry of Security was under

the KGB's control, even though most of its personnel were of Chinese origin and considered of doubtful loyalty. The KGB also ran operations from Burma, **Kazakhstan**, and **Kyrgyzstan**, usually involving the recruitment of refugees who were sent back across the frontier. Indeed, the Kazakh KGB's chairman was later promoted to Moscow to head the First Chief Directorate's Sixth Department.

Preobrazhensky is the only KGB retiree to have given an account of his experiences of working against Chinese targets, but his career in Tokyo was terminated when he was compromised by **Guan Fuhua** in July 1985. *See also* MIL MI-4; RESHETIN, IGOR; RUSSIA.

SPECIAL BRANCH. The principal security organization in British controlled territories, the Special Branch usually consisted of local Criminal Investigation Department detectives supervised by British personnel, who received intelligence and technical support from **MI5**. Prior to World War II, security in the International Settlements of **Shanghai** was controlled by a Special Branch headed by a British **Secret Intelligence Service** officer, Harry Steptoe, and Chinese Communist-inspired subversion was monitored by similar bodies in **Hong Kong**, Singapore, and Kuala Lumpur. *See also* ROYAL HONG KONG POLICE (RHKP).

STEINBERG, MAX. The **Comintern** representative in Harbin, Max Steinberg used the alias Charles Emile Martin, but his alias was exposed in January 1956, when he and his wife, Elsa, were arrested in Switzerland and deported after serving three months' imprisonment for passport offenses.

Originally from Belgorod-Dnestrovsky and born in 1889, Steinberg worked from November 1935 under commercial cover in Harbin as a director of Charles Martin and Company and using a Swiss passport issued by the Swiss legation in Warsaw. His declared business was the import and sale of Fiat motorcars and Italian aircraft in partnership with an elderly Milanese lawyer, Dr. Eugenio Carutti. While in Harbin, Steinberg also worked with a Comintern agent, **Isaiah Oggins**, but moved to Chailly, near Lausanne in Switzerland, in 1939. During World War II, Steinberg was connected to the GRU spy ring known as the Rote Drei and was also known as George Wilmer.

STENNES, WALTER. Formerly a leading Nazi in **Germany** and the Berlin commandant of the Sturmabteilung (SA), Walter Stennes was

appointed a liaison officer with the **Kuomintang (KMT)** in 1934 and became **Chiang Kai-shek**'s principal intelligence adviser. Born in 1895, Stennes fell out with Adolf Hitler in 1931 and made two unsuccessful attempts to remove him from power, which resulted in his own lengthy exile in **Shanghai**.

He remained in China until 1949 and then returned to Germany where he died in 1989, and after his death, it was alleged that, while working for the KMT, he had also acted as a source for the NKVD, codenamed DRUG (friend), until 1952. According to a report published in *Trud* in March 2000, Stennes had been in contact with **Richard Sorge** in Shanghai and had warned Josef Stalin that the Nazis would attack the **Soviet Union** in May or June 1941. The KGB's official history confirmed that in 1941 Vasili Zarubin had been sent to Shanghai to make contact with Stennes.

STEPTOE, HARRY. The head of the **Special Branch** of the International Settlement Police in **Shanghai**, Harry Steptoe was also the local representative of the British **Secret Intelligence Service (SIS)** between the wars. He was interned by the Japanese in 1942 and then exchanged at Mombasa with other diplomatic and consular personnel. Steptoe never recovered from his detention and was given early retirement from SIS in 1945.

SUCCOR DELIGHT. The **Federal Bureau of Investigation (FBI)** used the codename SUCCOR DELIGHT for **Wu Bin**, a 33-year-old former pro-Western professor of philosophy from Hohai University in Nanjing, graduate of Shanghai's Fudan University, and **Ministry of State Security (MSS)** agent, who was tasked in November 1990 to collect technology in the **United States** and pass it back to China through a front company in **Hong Kong**. The MSS recruited Wu because his cousin was known to run a computer business in Norfolk, Virginia.

Wu was told by MSS officers that his choice was to cooperate with the MSS or go to prison for his pro-Western activities, but the offer was sweetened by a promise that Wu could personally make money and further, that his girlfriend, Wang Jiyang, could join him in the United States once he was settled in and was producing technology.

Wu, who had been extensively interrogated while at his university, agreed to cooperate with the MSS, conscious that he had seen colleagues severely beaten for their pro-Western activities, and was instructed to memorize a

three-page list of desired technological items. Wu, who had no technological training, was told to simply become a successful businessman in the United States and that his value was for the long term. Evidently, the MSS had discovered that he had a cousin in the Norfolk, Virginia, area, and Wu was given a handler named Shen, who, once Wu had settled in Norfolk, sent postcards as "reminders" of his family remaining in China.

Always reluctant to undertake his MSS mission, he approached the FBI through an intermediary, Jing Pingli, in April 1991 and was enrolled as SOURCE 422 by a Mandarin-speaking special agent, Bruce Carlson. Wu provided information about his handler, a certain Mr. Chen, from whom he received \$2,000 at a safe house in Washington DC in August 1991, and about a group of Yugoslavs who were attempting to procure Chinese rocket launchers. SUCCOR DELIGHT was regarded as a valuable source by his FBI case officer, Blake Lewis, who paid him \$700 a month and established him and Jing, who changed his name to Robert E. Li, in a small office in Virginia Beach above a McDonald's restaurant. In November, the MSS indicated its approval of Wu's performance by allowing his wife, Wang Jiyang, to join him, and she brought him more cash. Soon afterward, the MSS asked Wu to order 44 vision-intensifier tubes, and he opened negotiations with a manufacturer, Varo Inc., of Garland, Texas. He also acquired a new partner, Zhang Pizhe, a 35-year-old graduate student at Old Dominion University, who had previously been employed by the U.S. embassy in Beijing.

However, in October 1992, Wu was arrested by U.S. Customs and convicted of breaches of the Arms Control Export Act relating to a consignment of 1,000 night vision goggles worth \$2 million and, in September 1993, was sentenced to 10 years' imprisonment. Li and Zhang received five years' each. The Customs operation, initiated after a tip from Varo, was unaware that Wu was an FBI informant, and although the FBI knew he was engaged in procuring matériel, did not realize that the items were the subject of an export embargo. The prosecution's star witness turned out to be Wu's wife, Wang Jiyang, who had discovered her husband's mistress and had been caught while attempting to remove \$50,000 from one of his frozen bank accounts. Although apparently offered the opportunity to be deported to China, after PRC embassy officials intervened, Wu preferred to serve his sentence at Loretto, Pennsylvania, declaring that he intended to live in Paris after his release. Wu served his

sentence and successfully fought off attempts by the Immigration and Naturalization Service to deport him, but ultimately, claiming harassment, he returned to China. *See also TECHNOLOGY ACQUISITION.*

SUN TZU. In the fourth century BC, General Sub Tzu wrote *The Art of War*, in which he expounded on the advantages of conducting efficient intelligence operations. Having commanded the army of the Wu state, at the estuary of the Yellow River, Sun Tzu had much to say on the topic of espionage networks and defined the role of double agents, defectors, and penetration operations. He remains an iconic figure in modern China; although, the **Ministry of State Security** does not regard him as offering any guidance relating to the conduct of intelligence operations.

SUN WEI-KUO. In September 1966, 25-year-old Sun Wei-kuo, an assistant information officer at the Chinese embassy in New Delhi, defected and was granted political asylum in **India**.

SUN YAT-SEN. The leader of the Tung Wo Triad Society in **Hong Kong**, Sun Yat-sen was born into an agricultural family near Canton in November 1866 but received a Christian education in Honolulu, where his elder brother had immigrated to. He gained a medical degree from the Alice Memorial Hospital in Hong Kong and practiced in **Macao** before becoming involved in politics in 1894, founding the *Hsing Chung Hui* (Revive China Society) and combining with the Triads to oppose the corrupt Manchu administration and mount a coup in Canton in October 1895. Sun's Young China movement failed to seize the city, and he went on the run, finally seeking refuge in Macao with a price of £100,000 on his head. From the Portuguese colony, Sun traveled to Hong Kong, Kobe, and Hawaii before reaching San Francisco, where a plot to abduct him was foiled. Finally, in October 1896, Sun arrived in London but was kidnapped and detained in the Chinese legation in Portland Place for 12 days until news of his incarceration leaked, and the prime minister, Lord Salisbury, intervened to have Sun released.

Sun's campaign among Chinese émigrés continued until December 1911, when he returned to China after the emperor had been deposed in a coup and was elected provisional president of the republic of China in Nanking in January 1912. Hailed as the first leader of Nationalist China, Sun was forced into exile in 1913 to Japan, where he reorganized the **Kuomintang**

(KMT), and then declared himself president of a military government in Canton in 1917. He established the Whampoa Military Academy near Canton, appointing his protégé **Chiang Kai-shek** as commandant and, with support from the Communists, fought numerous campaigns in the north to unify the country before his death in Peking in March 1925.

SU YANG. *See ZHU, PETER.*

T

TAI LI. Born in Zhejiang Province in May 1889, the ruthless chief of Chiang Kai-shek's secret police was sometimes referred to as "Chiang's Himmler." Tai Li (Dai Li using the Pinyin Romanization of Chinese names) was commissioned into the Kuomintang's military police and, by 1927, was in command of the organization's branch in Shanghai when Chiang launched a successful coup. His relationship with Chiang prospered on his bloodthirsty reputation and his willingness to hold summary executions to eliminate opponents. Promoted in 1928 to head Chiang's secret police, initially known as the Clandestine Investigation Section of the Chinese Military Council but later as the Investigation and Statistics Bureau, General Tai became known as "the Butcher" because of his elimination of thousands of suspected Communists. He also headed the feared Blue Shirt Society, a paramilitary fascist group that undertook security and intelligence work on the Generalissimo's behalf. Cruel but efficient and a rigid disciplinarian, in 1938, Tai engineered the defection of Zhang Guotao, a leading Communist, using a beautiful woman, Han Suyin, as an intermediary, and gained such respect and prominence that he was the only officer trusted to wear a weapon in the Generalissimo's presence.

According to one of the many legends surrounding Tai Li, he refused his deputy, General Pan Chi-wu, permission to marry and then turned down his request to resign. Soon afterward, the girl was found dead, and the grief-stricken General Pan's plea to join a monastery was also declined, leading him to believe that Tai would never allow him to leave the service alive.

During the war with Japan, Tai made an alliance with some of China's ubiquitous secret societies to foment resistance behind enemy lines and achieved high ranks in one of the Triads, the notorious Green Gang, which boasted 400,000 members in Shanghai and another million in the Yangtze valley. Headed by Du Yuesheng, the Greens moved their base to Luchow, leaving their rivals, the Red Circle, to dominate Canton and southern China. Their austere leader, Ming Te, was also cultivated by Tai and participated in guerrilla operations against the Japanese.

With mainly American support, Tai sought to undermine not only his principal Communist opponent, Kang Sheng, but also to challenge some

uncooperative warlords, some recalcitrant Triads, and, of course, the Japanese. Tai's great advantage was his ability to dominate and manipulate American policy through the **Sino-American Cooperative Organization**, to the extent that the **Office of Strategic Services** was unable to conduct independent operations without his sanction.

Tai died when his plane crashed in poor weather in March 1946 between Qingdao and Shanghai, also killing three bodyguards and a code clerk. His biography, *Spymaster*, was written by Frederic Wakeman in 2003. *See also* CHIANG CHING-KUO; MILITARY INTELLIGENCE BUREAU (MIB); NATIONAL SECURITY BUREAU (NSB).

TAI SHEN KUO. Originally from **Taiwan** and the son of a senior army officer, Tai Shen Kuo became a naturalized U.S. citizen and, in August 2008, was sentenced to 16 years' imprisonment for passing information acquired from **Gregg Bergersen**, a retired Pentagon analyst, and from retired U.S. Air Force Lieutenant-Colonel **James Fondren**, to Beijing.

Aged 58, Tai Kuo owned several businesses in New Orleans and had been employed as a tennis instructor at the U.S. embassy in Taipei before he obtained a student visa in 1973 to attend Nicholls State College, at Thibodaux, Louisiana, on a tennis scholarship, and later had worked as a tennis professional at the Ellendale Country Club. He also worked for the Guangdong Friendship Association, a voluntary group dedicated to the promotion of Sino-American ties, where he met Lin Hong, the man identified as his handler.

Well known as a restaurateur, the owner of Mr. Tao's, in New Orleans, Kuo had posed as a Taiwanese agent, in a characteristically Chinese version of a "false flag" operation, to extract documents from Bergersen who was sentenced to nearly five years' imprisonment. When confronted in February 2008 by the **Federal Bureau of Investigation**, which had detected a link to a separate case in California, Kuo agreed to cooperate and testified against Fondren. Kuo's sentence, served in Arizona, was later reduced to five years.

Also jailed was "Katie" Yu Xin Kang, a 33-year-old Chinese woman who was employed in Tai's furniture business but acted as an intermediary with the **Ministry of State Security** and lived with him at his home on Wellington Drive, Summerfield, Louisiana. *See also* UNITED STATES OF AMERICA (USA).

TAIWAN. Throughout the existence of the People's Republic of China (PRC), one of the Beijing leadership's principal objectives has been absorption of the Republic of China (ROC) and occupation of Taiwan and its neighboring islands of Quemoy, Little Quemoy, the Pescadores, and Matsu Islands. A guarantee of military assistance from the **United States** has been pivotal in preventing a full-scale assault on Taiwan during several periods of high tension, such as August 1958, when the **People's Liberation Army (PLA)** shelled the Quemoy garrison, imposed an air and naval blockade, and escalated the propaganda rhetoric in local radio broadcasts. Intelligence agencies reported concentrations of aircraft in Fujian and Zhejiang and Communist Party meetings at which citizens pledged to support the liberation of Taiwan "at any time," during a period when the West was distracted by developments in the Middle East. In September, Beijing announced a 12-mile territorial limit but only harassed U.S. Seventh Fleet vessels escorting supply ships to relieve Quemoy and did not prevent Nationalist planes conducting airdrops. The Seventh Fleet presence grew to 6 aircraft carriers, 3 heavy cruisers, and 40 destroyers deployed in the Straits. No frontal assault materialized, and an air battle fought with interceptors armed with American-supplied Sidewinder missiles resulted on 24 September in the loss of 10 MiG jet fighters.

Overflights of the Chinese mainland had taken place routinely since 1955, when, between 11 May and 12 June, at the height of fear that Taiwan was about to be invaded, U.S. Marine F2H-2P Banshee photoreconnaissance aircraft, usually based in Korea, were transferred to Tainan airfield in southern Taiwan to conduct a total of 22 missions over Fukien Province, escorted by F2H-2 fighters. Although some MiG-15s had attempted to intercept these flights, no American aircraft were lost. As well as collecting imagery, some flights were signals intelligence missions to enhance the interception program conducted by the U.S. Army Security Agency site on the Nan Szu Pu airfield.

Subsequent reconnaissance flights were made from Taoyüan by RB-57D aircraft, the American variant of the British Canberra, which had been loaned to the Nationalists by the U.S. Air Force. Two were shot down over China, in February 1958, over Shandong, by a PLA Naval Air Force MiG-15, and in October 1959, near Beijing by an SA-2 Guideline.

Until the move toward normalization of relations between Washington DC and Beijing in 1971, the **Central Intelligence Agency (CIA)** relied on the

Nationalists to act as surrogates to collect information from human sources and provide support facilities for so-called Third Force guerrilla movements supposedly operating independently on the mainland, conducting anti-Communist campaigns. Initiated during the **Korean War**, Third Force activities were sponsored from April 1951 by a semitransparent CIA front organization, Western Enterprises, which ran training camps on White Dog Island for volunteers before sending them to Okinawa to practice parachute jumps. These CIA operations, which infiltrated men into Sichuan and dropped supplies to Hui tribesmen and a clandestine movement headed by Ma Pu-fang, were all doomed to collapse but not before huge amounts of money had been invested in them.

Other Nationalist ground operations sponsored by the CIA were run across the Burmese border, where General Li Mi commanded two regiments or irregulars, some of whom had undergone CIA training in Thailand. However, Li Mi's organization was heavily penetrated by agents working for **Mao Zedong**, including a radio operator based in Bangkok, who was able to alert the Communists to plans to mount raids across the PRC's frontier until his duplicity was discovered.

Although the political climate between Taipei and Beijing has improved in recent years, to the point of allowing regular civil flights and other exchanges between the two countries, the military balance has remained, with analysts constantly comparing the relative strength of the PLA and the ROC's armed forces. Beijing remains acutely interested in its adversary's hardware and contingency plans. A comparison between the two sides gave the PLA a naval advantage in destroyers at 27:4, frigates 48:24, attack submarines 57:2, and fast patrol vessels 77:50. However, Taiwan's sophisticated air force, armed with 144 F-16 fighters (with a request to purchase a further 66 of the C/D variant), 125 F-CK-1s, 50 F-5Es, and 57 Mirage 2000s, supported by 6 airborne early warning aircraft and 25 hardened early warning ground radars, suggests a reliance on a strategy of exercising air superiority backed by batteries of modern Patriot PAC-2, Hawk, and Sky Bow missiles. In contrast, the **People's Liberation Army Air Force (PLAAF)** boasts 127 Sukhoi-30s, 132 Sukhoi-27s, 390 J-8 fighters, 60 J-10s, 579 J-7s, and 235 Q-5 and JH-7A ground attack aircraft, supported by 7 airborne early warning planes. While the PLAAF enjoys a huge numerical superiority, its aircraft are largely obsolete, even if they are scheduled to be retrofitted with improved avionics.

In such a competitive environment, intelligence concerning new equipment, recently acquired weapons, and changes in tactics becomes a potentially war-winning priority, and accordingly, both Taipei and Beijing devote considerable resources to assessing the relative strength of the opposing forces. Almost totally dependent on modern U.S. military equipment, Taiwan is sensitive to fears that the country cannot protect its modern technology from mainland espionage. The Chinese Communists also routinely indulge in “false flag” intelligence collection operations to penetrate Nationalist security.

In spite of improved political ties fostered by President Ma Ying-jeou, a member of the **Kuomintang** who was elected in 2008, Taiwan remains a key target for the **Ministry of State Security (MSS)**, and in 2009, a presidential aide, Wang Jen-ping, was convicted of having sold more than 100 confidential documents to the MSS over the previous two years. In November 2010, a senior military intelligence officer, Colonel Lo Chicheng, was arrested on suspicion of spying for China, having been recruited by a local businessman, Lo Ping, who was sentenced to 42 months’ imprisonment by a civilian court. In April 2011, Colonel Lo was given life. Then, in January 2011, General **Lo Hsien-che** was detained on the same charge. *See also AA-2 ATOLL; AUSTRALIA; BERGERSEN, GREGG W.; BLACK BAT SQUADRON; BLACK CAT SQUADRON; CAMPCON; CHANG HSIEN-YI; CHANG, THERESA; CHEN YONGLIN; CHIANG CHING-KUO; CHIANG KEWILIN; CHI MAK; CHIN, LARRY WU-TAI; CHINESE NAVAL STRENGTH; CHINESE NUCLEAR WEAPONS; CHINESE SIGNALS INTELLIGENCE; CIVIL AIR TRANSPORT (CAT); CLINE, RAY; DIRECTION GÉNÉRALE DE LA SÉCURITÉ EXTÉRIEURE (DGSE); EIGHTH BUREAU; FIRST BUREAU; FONDREN, JAMES W.; GE YUEFEI; GOVERNMENT COMMUNICATIONS HEADQUARTERS (GCHQ); GUO WANJUN; HANSON, HUANG; HO CHIH-CHIANG; HONG KONG; INTELLIGENCE BUREAU OF THE MINISTRY OF NATIONAL DEFENSE (IBMND); INTERNATIONAL LIAISON DEPARTMENT (ILD); JAPAN; KAMISEYA; KASHMIR PRINCESS; KEYSER, DONALD W.; LAU YVET-SANG; LEE, PETER; LEE, SAM CHING-SHENG; LI JAIQI; LILLEY, JAMES; LI SHAOMIN; LI TSUNG-JEN; MACAO; MILITARY INTELLIGENCE BUREAU (MIB); MILITARY INTELLIGENCE DEPARTMENT (MID); MIN GWO BAO; MOO, KO-*

SUEN; NATIONAL SECURITY BUREAU (NSB); OVERSEAS CHINESE; PARLOR MAID; PENG, YEN-CHIN; PIRACY; SECOND DEPARTMENT (2/PLA); SHESU LO, ROLAND; SHRIVER, GLENN D.; SINO-SOVIET SPLIT; SOVIET UNION; TAI SHEN KUO; TAKHLI; THIRD DEPARTMENT; TSOU, DOUGLAS; U-2; UNITED STATES OF AMERICA (USA); WANG HSI-LING; WEN HO LEE; XIONG XIANGHUI; YU QIANGSHENG; ZHANG JIYAN; ZHU CHENZHI.

TAJIKISTAN. The People's Republic of China's (PRC) former Soviet neighbor, independent since 1991 and since 1996 a member of the **Shanghai Cooperation Organization**, Tajikistan has received considerable infrastructure investment from Beijing, including a power line network installed by China Theban Electric Apparatus Stock in partnership with the Tajik national power company. Having fallen within the PRC's sphere of influence, Tajikistan has become a significant target for intelligence collection by the **Ministry of State Security**.

TAKHLI. The U.S. airbase at Takhli in central Thailand was the launch site for a series of overflights conducted by a Taiwanese U-2C and a U-2F of the nuclear test site at Lop Nor in June 1967. *See also AIRBORNE COLLECTION; BLACK CAT SQUADRON; UNITED STATES OF AMERICA (USA).*

TECHNOLOGY ACQUISITION. Evidence collected during criminal investigations conducted in the **United States** suggests that the collection of modern technology is pursued as a priority by the People's Republic of China (PRC) intelligence authorities, which employ both professional agencies to undertake acquisition operations and private individuals who appear to act independently, confident that they can sell sensitive data to the government. According to the U.S.-China Economic and Security Review Commission report published in November 2009, "These efforts fall broadly into four broad categories":

- 1) "actuarial" intelligence cobbled together from multiple sources; 2) "professional" intelligence-gathering conducted or directly sponsored by PRC intelligence agents; 3) "enterprise-directed" acquisition of controlled technology driven by entities within the Chinese state scientific research and development military-industrial sectors; and 4) "entrepreneurial" industrial espionage and illegal technology exports carried out by private actors seeking rewards from the Chinese government.

The “actuarial” approach was described in detail in the January 2000 **Central Intelligence Agency (CIA) and Federal Bureau of Investigation (FBI) Report to Congress on Chinese Espionage Activities against the United States**, declassified in January 2006, as “grains of sand” collected indiscriminately, often from unrestricted sources, which, when assembled later, could provide valuable information. Sometimes referred to as the “mosaic method,” this system was considered “inefficient but not ineffective.”

Because the Chinese consider themselves to be in a developmental “catch-up” situation, their collection program tends to have a comparatively broad scope. Chinese collectors target information and technology on anything of value to China, which leads them to seek to collect open-source information as well as restricted/proprietary and classified information.

Gradually, of course, as the quality of PRC technology improves, this scattergun, piecemeal methodology will yield fewer results, and the commission predicted that the collection effort will inevitably become more focused. Indeed, the commission cited the **Chi Mak** case and the prosecutions of **Gregg Bergersen** and **James Fondren** as evidence that Chinese clandestine operational sophistication had improved.

In assessing the more professional methodology, the commission referred to **Project 863** and quoted a 2008 Defense Security Service report that noted a rise in Chinese commercial firms making “a purposeful attempt to make the contacts seem more innocuous by using non-governmental entities as surrogate collectors for interested government or government-affiliated entities.” This view reflected the earlier CIA and FBI testimony that “China’s commercial entities play a significant role in the pursuit of proprietary/trade secret U.S. technology. The vast majority of Chinese technology entities in the United States are legitimate companies; however, some are a platform for intelligence collection activities.”

As an example of “enterprise-driven” espionage conducted by the PRC or state-sponsored organizations, the commission cited the conviction of **Greg Chung** in July 2009 and quoted from the Director of National Intelligence Dennis C. Blair when examining “entrepreneurial espionage”:

Non-professional intelligence collectors—including government and commercial researchers, students, academics, scientists, business people, delegations and visitors—also provide China with a significant amount of sensitive U.S. technologies and trade secrets. Some members of this group knowingly or unknowingly collect on behalf of [PRC intelligence agencies] or Chinese defense industries, presenting a significant intelligence threat. But in many cases the collection

efforts of these private-sector players are driven entirely by the opportunity for commercial or professional gain and have no affiliation with [PRC intelligence].

The Commission's examples of "entrepreneurial espionage" included Dr. **Shu Quansheng**, imprisoned in November 2009, and the **FirmSpace** indictment handed down in Minnesota in October 2008. *See also* AMGEN; CHANG, THERESA; CHAO TAH WEI; CHENG, PHILIP; CHI TONG KUOK; DING, JIAN WEI; DU SHASHAN; FRANK, DESMOND DINESH; GOWADIA, NOSHIR S.; HANSON, HAROLD DEWITT; INDUSTRIAL ESPIONAGE; IRAN; ITT CORPORATION; JIN HANJUAN; KHAN, AMANULLAH; KOVACS, WILLIAM; LAM, WAI LIM WILLIAM; LAU, HING SHING; LEE, SAM CHING SHENG; LIANG XIUWEN; LI QING; LIU SIXING; LU FU-TAIN; MENG, XIAODONG SHELDON; MENG HONG; MOO, KO-SUEN; NAHARDANI, AHMAD; ROTH, JOHN REECE; SUCCOR DELIGHT; TAIWAN; TSU, WILLIAM CHAI-WAI; WANG-WOODFORD, LAURA; WAVELAB INC.; WEN HO LEE; WU BIN; XU BING; XU WEIBO; YANG FUNG; YANG LIAN; YU XIANGDONG; ZHANG, DAVID; ZHANG, MICHAEL MING; ZHONG MING; ZHU, PETER; ZHU YAN.

TECHNOLOGY COUNTERFEITING. Between 2002 and 2004, a series of unprecedented computer system failures in the **United States** linked to substandard equipment prompted a **Federal Bureau of Investigation (FBI)** study of the appearance of large quantities of counterfeit technology on the international market. One focus was on routers and other hardware, including gigabit interface converters purportedly manufactured by Cisco, a company with 80 percent of the U.S. market. The FBI discovered that bogus Cisco products had closed down a major computer system in Pittsburgh and, in 2004, had caused the failure of a national weather reporting network that supposedly had been upgraded with new hardware.

The FBI investigation revealed a widespread fraud in which subcontractors had acquired counterfeit technology from suppliers in Shenzhen, a special economic zone in the People's Republic of China (PRC), and then peddled the material to clients as the authentic product, using ostensibly legitimate serial numbers, packaging, software, and manuals. However, once installed, the equipment experienced a high failure rate and, of more concern to the intelligence community, included

subroutines that allowed access to protected sectors previously thought secure and undermined cryptographic systems.

The counterfeit material was traced back to the PRC through intermediaries in Holland, **Germany**, **Canada**, and **Great Britain**, and investigations were launched against two U.S. government contractors, eGlobe Solutions of Seattle and Syren Technology, based in Laguna Niguel, California. Run by two brothers, Mike and Scott Song, eGlobe's clients included Raytheon, the U.S. Naval Air Warfare Center, the Naval Undersea Warfare Center, and the U.S. Air Force at Spangdahlem, Germany, and the proprietors were charged with having sold counterfeit Cisco and Sun Microsystems equipment between May 2003 and July 2005, valued at \$788,000. In the case of Syren Technology, Robert and Michael Edman, both of Richmond, Texas, were indicted in December 2007 with having sold fake Cisco hardware to the FBI, the Federal Aviation Administration, and the U.S. Air Force. In addition, an investigation conducted by Lockheed Martin revealed that two of its subcontractors, American Data and Gulfcoast Workstation Relational Technology Services, had provided the U.S. Navy with counterfeit Cisco routers.

The FBI concluded that up to 10 percent of technology sales, estimated at \$100 billion annually, involved counterfeit products and noted that much of the material was exported from the PRC by the Chinese postal service and not by regular shippers, in small consignments, with manuals, hardware, and software sent separately. Typically, the equipment was then assembled by middlemen, some of them even authorized legitimate suppliers, who offered it at suspiciously low discounts. Apart from the security implications for critical infrastructure, the counterfeiters had penetrated the open market information technology trade and used eBay as a method for distributing fake or substandard computer components.

During the FBI's investigation, which raised many trademark and other issues, it received assistance from the **Ministry of Public Security** in Beijing, but the extent to which the PRC authorities had colluded in the large-scale counterfeiting activities in Shenzhen remained unclear. *See also TECHNOLOGY ACQUISITION.*

TEWU GONGZUO. A term used by the Chinese when referring to clandestine activities, *tewu gongzuo* means literally “secret work activities.”

THIRD DEPARTMENT. The largest of all the People's Republic of China's intelligence agencies, reportedly employing 20,000 staff, the Third Department of the **People's Liberation Army's (PLA) General Staff Department (GSD)** is responsible for signals intelligence collection and maintains a close relationship with the PLA's **Fourth Department**, which engages in electronic warfare.

The Third Department (*Zongcan Sanbu*) incorporates the GSD's Electronic Countermeasures and Radar Department (*dianzi duikang yu leida bu*), which conducts the country's cryptographic operations from numerous ground stations, half a dozen ships, trucks, and airborne PLA Air Force platforms flown from the Sixth Research Institute (*Kongliusuo*) in Beijing. The Third Department's headquarters is located close to the GSD First (Operations) Department complex in the hills northwest of the Summer Palace and is staffed by some 20,000 personnel, including a large number of linguists trained at the Luoyang Institute of Foreign Languages.

Signals collection operations are controlled centrally from Beijing with subordinate satellite sites spread across the country. A large station in Lanzhou monitors Russian traffic and also functions as a strategic early-warning facility, while the Shenyang station covers **Russia, Japan, and Korea**. The Chengdu site covers **India, Pakistan**, and Southeast Asia, while Nanjing concentrates on **Taiwan**. Guangzhou covers Southeast Asia and the South China Sea, and smaller stations located along the border at Jilemutu, Erlian, and Hami monitor Russia.

The Third Department collaborates with its American counterpart at Korla and Qitai on the Afghan border, and runs two other stations in Shanghai. Additional intercept facilities have been built on Rocky Island (Shidao), near Woody Island in the Paracels, and in Burma, perhaps for covering the Indian Ocean.

TIBET. Occupied by the People's Republic of China (PRC) since 1950, with intensive oppression from 1959, which forced the Dalai Lama to take refuge in Dharamsala, Tibet has been a focus of domestic unrest and a source of external political pressure from émigrés and their supporters. A resistance army, the Chushi Gangdruk, was created in 1956, after the **People's Liberation Army (PLA)** had bombed several monasteries. Headed by a wealthy Tibetan businessman from Litang, Andrug Gompo Tashi was put in touch with the U.S. **Central Intelligence Agency (CIA)** the following year by the Dalai Lama's two brothers, and arrangements

were made for volunteers to undergo training at Saipan and then at Fort Hale, Colorado, in preparation for their reinsertion by parachute and their role in **CIRCUS**. It was a group of Chushi Gangdruk guerrillas that escorted the Dalai Lama over the frontier to safety, a risky exfiltration that the organization would come to regard as one of its major successes.

Thereafter, the resistance was based at Mustang, in northern Nepal, mounting occasional raids into Tibet, which, from March 1961, were supported with modern weapons supplied by the CIA. Their principal target was traffic on the Lhasa-Xinjiang highway, which the Chinese closed in 1964 because of the number of attacks, but fear of reprisals and a comprehensive network of informers prevented Chushi Gangdruk from penetrating deeper. Three years later, the CIA began winding down the operation, and in the summer of 1974, Nepal's army dismantled the Mustang base after the Dalai Lama ordered the surviving guerrillas to surrender. A few committed suicide, and the remaining veterans were imprisoned briefly before being resettled in camps in Kathmandu and at Jampaling, near Pokhara, and found jobs subsidized by the CIA.

Another large group of refugees concentrated at Dehradun in Rajasthan where, under the sponsorship of the Indian Central Intelligence Bureau, they were trained as guerrillas. Following the Indo-Chinese border conflict in 1962, the **Indian** government deployed them to Chakrata as part of the paramilitary Special Frontier Force led by General Sujan Singh Uban to undertake reconnaissance missions over the border into the PRC, principally to collect information on PLA positions for the Indian foreign intelligence service, the Research and Analysis Wing (RAW). In February 1963, training for what became known as Establishment 22 was conducted by CIA personnel headed by Colonel Wayne F. Sanford, a former U.S. Marine.

Émigré Tibetan activists and the separatist movement continue to be regarded as priority targets for intelligence collection by the **Ministry of State Security**, as confirmed by numerous MSS and PRC diplomatic defectors, among them **Zhang Jiyan** in Ottawa and **Chen Yonglin** in Sydney. Additionally, the Dalai Lama and his adherents are the subject of harassment, hostile penetration, and a strategy of disruption orchestrated by the MSS, which has included sophisticated cyber attacks on émigré websites and computer networks, while the MSS has credited the CIA with masterminding internal dissent and undermining the regime by spreading

propaganda. *See also* CYBER ESPIONAGE; GHOSTNET; MACKIERNAN, DOUGLAS.

TIGER TRAP. The Federal Bureau of Investigation used the codename TIGER TRAP for the surveillance in 1981 of **Min Gwo Bao**, which was later extended to cover **Wen Ho Lee**.

TITAN RAIN. In 2002, the United States intelligence community began monitoring cyber attacks mounted from the People's Republic of China (PRC) but channeled through **North Korea**. Codenamed TITAN RAIN, the operation identified thousands of attempts to penetrate the U.S. Information Systems Engineering Command, the Defense Information Systems Agency, and the Space and Missile Defense Acquisition Center. In January 2010, the Internet company responsible for managing the Google search engine revealed that the PRC had been behind a concerted political and corporate espionage program known as AURORA, which had targeted major financial, defense, and technology companies in the United States since 2005 and had also pursued human-rights activists and political dissidents within mainland China. Other websites, including the BBC and Wikipedia, also reported interference with access to their services and, according to the U.S.-China Economic and Security Commission's *Report to Congress*, for 18 minutes on 8 April 2010, China Telecom seized control of some 15 percent of the entire worldwide web by erroneous network routes, which had the effect of channeling routine Internet communications involving IBM, Yahoo!, Microsoft, the U.S. Congress, and various U.S. military websites, through servers in the PRC.

This unprecedented diversion was brief in duration but was interpreted by Western analysts as a sophisticated attempt to test Beijing's ability to manipulate the Internet and hijack private messaging, perhaps even inserting malware into the traffic, thereby contaminating target computer systems. According to the U.S. Computer Emergency Response Team at the Department of Homeland Security, reports of cyber incursions have increased from 5,503 incidents in 2006 to 41,776 four years later, and the U.S. State Department's BYZANTINE HADES investigation traced many of them to the **People's Liberation Army**. *See also* CYBER ESPIONAGE; GHOSTNET.

TONGJ BU. The Communications Department of the PLA's **General Staff Department**, the *Tongj Bu* is responsible for the PLA's communications.

TOPPER. On 30 March 1960, the **Central Intelligence Agency (CIA)** deployed **U-2** aircraft on a series of missions from Atsugi over the People's Republic of China (PRC) to drop javelin-like remote sensors calibrated to seismically detect evidence of nuclear tests. The second TOPPER mission, flown a few days later on 5 April, ended in a mechanical failure, which required the pilot to make a crash landing in a paddy field in Thailand. The wreckage was recovered to Bangkok's Don Muang airfield, where a C-124 cargo plane flew it back to Edwards Air Force Base in California.

The use of remote sensors to collect technical intelligence is a highly effective method of monitoring activity in identified locations associated with the testing of warheads and missiles. The equipment, usually a modified geophone or seismometer, is designed to detect events at long distances, measure the intensity of teleseismic waves, and provide data that, when processed with similar information from other sites, will offer an accurate bearing on the source. With sufficiently sensitive apparatus, a nuclear detonation occurring deep under a mountain thousands of miles away can be recorded by a network of devices linked to a central facility. Since the 1996 Comprehensive Test Ban Treaty, the International Monitoring System has been responsible for the management from Vienna of 250 stations worldwide, which ensure compliance.

However, the challenges posed by the PRC, which has consistently rejected participation in international treaties limiting nuclear tests, are considerable because much of the country is subject to vibration from naturally occurring earthquakes, the test site at Lop Nor in western **Xinjiang** Province is far from the nearest neutral territory from which regional wave infrasound monitoring could be conducted, and from 1961, the Soviets conducted their underground nuclear tests south of the known atmospheric test site at Semipalatinsk in **Kazakhstan**. Altogether, some 340 Soviet tests were registered until 1989. In contrast, a total of 45 tests were conducted at Lop Nor from October 1964, of which 23 were atmospheric, with the first underground test detected in September 1969, and the last atmospheric test conducted in October 1980. The last underground test at Lop Nor took place in July 1996, and since then, the PRC appears to have been in de facto compliance with the treaties since the ban on atmospheric

testing in 1963, which it has refused to sign. *See also* NANDA DEVI; UNITED STATES OF AMERICA (USA).

TROPIC. The **Central Intelligence Agency (CIA)** used the codename TROPIC for an operation conducted in 1952 to drop **Kuomintang** agents into eastern Manchuria from a C-47 and a B-17. When the CIA's unmarked C-47, based in Atsugi but flying missions from Seoul, was shot down near Antu in Jilin Province on 29 November, two crewmen, Robert C. Snoddy and Norman A. Schwartz, were killed, and 24-year-old Richard G. Fecteau and 27-year-old John T. Downey were captured. They had been attempting to "air snatch" documents from an agent with a Fulton Skyhook but had been lured to the area by messages sent by agents who had been operating under Chinese control.

Two years later, the People's Republic of China (PRC) announced the conviction of the pair and 11 other Americans, aircrew from a B-29 downed over Liaoning, on espionage charges, and they remained in Chinese captivity until 9 December 1971 and March 1973, respectively, when they were released over the Lo Wu Bridge into **Hong Kong**. Both were newly recruited CIA officers and under interrogation revealed what information they had, Fecteau having had less than five months' experience in the agency. Downey had joined the CIA from Yale in June 1951 and, after three months' training at Fort Benning, Georgia, had been posted to Atsugi. In 2010, TROPIC was the subject of a documentary film, *Extraordinary Fidelity*, which was made by the CIA for training purposes and was introduced in the Langley campus "bubble" by the director, Leon Panetta.

Between 1951 and 1953, a total of 212 agents were parachuted into mainland China, of whom 101 were killed and 111 captured. The initially unexplained loss of the C-47, which effectively terminated CIA paramilitary operations in the PRC, was a result of the capture of the team of agents, led by Chang Tsai-Wen, which had been inserted in July after training on Saipan. The plane had been lured into a trap while attempting to exfiltrate Li Chu-ying, who had been delivered the previous month on an inspection mission. *See also* CIVIL AIR TRANSPORT (CAT); TAIWAN; U-2.

TSANG, JOHN. A senior **Hong Kong Police (HKP)** officer, Superintendent John Tsang was a **Ministry of State Security** mole who had joined the **Special Branch** in 1951 and had also served in the Criminal

Investigation Division and in the uniform sections. Much admired by his colleagues, Tsang was a tall, imposing man who had spent a year at Oxford University and had received rapid promotion, most recently from Police Commissioner Henry Heath.

Tsang was identified after a routine, random search of a visitor at the Lo Woo border bridge had revealed a courier carrying a coded message between his toes. He was detained and replaced by a volunteer from the **MI5 security liaison officer**'s unit, who delivered the item to a house occupied by a single woman, who, from a picture on her wall of a police passing-out parade, appeared to be connected to the police. Physical and technical surveillance eventually revealed that she was John Tsang's mother.

At the time of his arrest in 1959 by his close friends Peter Law and Richard ("Ricky") Richardson, Tsang was deputy commandant at the Police Training School and considered by colleagues to be a likely candidate as the HKP's first Chinese commissioner. During five months of interrogation, Tsang revealed that he had been coerced into working for the Chinese after they had learned that during World War II he had spent a year in **Japan**, training to be a Japanese spy. He made a full confession, confirming that he had maintained contact with the Chinese throughout his service in Special Branch, which had begun in 1951, and then was deported to China. During the **Cultural Revolution**, he broadcast from Guangzhou on the radio, urging his former compatriots to revolt. A lengthy Special Branch investigation revealed that Tsang had been especially friendly with another Chinese officer at Sau Ki Wan, Superintendent Wong Wing Yin, who had been working for the **Kuomintang** in Taiwan. He too was arrested, interrogated, and then deported.

When the American author James Clavell visited Hong Kong to research *Noble House*, he learned about Tsang's espionage and included a character in his book based on the case.

TSOU, DOUGLAS. Having fled from the mainland to **Taiwan** in 1949, when the Communists gained power, Tsou immigrated to the **United States** 20 years later and became a naturalized U.S. citizen. Between 1980 and 1985, he was employed by the **Federal Bureau of Investigation (FBI)**, first in San Francisco and then in Houston, before he admitted in 1986 that he had written a letter to a representative of the government of Taiwan revealing secret information, this being the identity of an intelligence

officer working for the People's Republic of China. Tsou was fired immediately and, in 1988, was indicted. At his trial in 1991, he was found guilty of a single count of espionage and sentenced to 10 years' imprisonment, prosecutors having claimed that the information contained in that single letter represented only a small amount of the total passed to Taiwan during his six years with the FBI. *See also* NATIONAL SECURITY BUREAU (NSB).

TSU, WILLIAM CHAI-WAI. On 10 January 2009, William Chai-Wai Tsu, aged 61, was arrested by agents of the Export and Anti-proliferation Global Law Enforcement Task Force at the Commerce Casino in Hacienda Heights, California, and charged with violations of the International Emergency Economic Powers Act. Employed by a Beijing-based military contractor, Dimigit Science and Technology Company, and vice president of Cheerway Inc., Tsu exported more than 400 restricted integrated circuits with military applications in radar systems to the People's Republic of China (PRC) over a period of 10 months, having assured several American suppliers that the circuits would not be exported. According to the prosecution, Tsu supplied restricted technology to several customers in China, including the 704th Research Institute, also known as the Aerospace Long March Rocket Technology Company, a firm affiliated with the state-owned China Aerospace Science and Technology Corporation.

On 3 August 2009, Tsu pleaded guilty and was sentenced to 40 months' imprisonment. *See also* TECHNOLOGY ACQUISITION; UNITED STATES OF AMERICA (USA).

TUNG CHI-PENG. Following the assassination of the prime minister of Burundi, Pierre Ngendandumwe, in January 1965, the assistant cultural attaché, Tung Chi-Peng, defected to the **Central Intelligence Agency** and revealed that the Chinese embassy had orchestrated the attempted coup and was planning to overthrow the government of the Democratic Republic of the Congo so as to gain access to that country's uranium reserves. The Burundi authorities immediately expelled the entire Chinese diplomatic mission in Bujumbura.

U

U-2. Reconnaissance flights by the high-altitude Lockheed U-2 over mainland China began in August 1957 with two missions flown from Peshawar in Pakistan. They went undetected, and the absence of any SA-2 Guideline missiles made the incursions relatively risk free.

More regular incursions started on 18 June 1958 when two aircraft of Detachment C of the 4th Weather Reconnaissance Squadron (Provisional) were flown by **Central Intelligence Agency (CIA)** pilots from Atsugi in **Japan** to photograph suspected troop movements. The imagery disclosed none, but two months later, a further four missions were completed as Quemoy came under an intensive artillery barrage. More flights took place on 9 September and 22 October, but again the imagery did not reveal any indication that the **People's Liberation Army** was preparing to invade **Taiwan** or occupy the vulnerable islands of Quemoy and Little Quemoy.

In March 1960, **TOPPER** missions were flown to insert remote sensors in China, but the loss of a U-2 in Thailand on the second flight reduced Detachment C's strength to three planes. Clearly, the **People's Liberation Army Air Force (PLAAF)** was aware of the high-flying aircraft because, on one mission flown in March 1960, more than 30 PLAAF fighters attempted interception. The aircraft were withdrawn from Atsugi in August 1960 at the request of the Japanese government and transferred to Edwards Air Force Base in California.

In December 1960, the CIA established Detachment H at Taoyüan, near Taipei, to overfly the mainland. Southern China was covered from Cubi Point in the Philippines, while the north was penetrated from Kunsan on **South Korea**'s west coast, the dismantled planes having been flown by C-130 transports to the remote takeoff airfields for reassembly.

Following the decision to equip the Nationalists with the U-2A, flight conversion training began at Laughlin Air Force Base in May 1959, with six candidates led by Colonel Shih Chu Yang. Two of his pilots, Colonel Chen Wai-sheng and Captain Fan Hung-ti were killed, and Shang Shi-hi was withdrawn from the program after he survived two crashes by ejecting, only to be killed later in an F-104. Eventually, a total of 26 Nationalist pilots would qualify on the aircraft in the **United States**.

Upon their return to Taiwan, the pilots were assigned to the 35th Reconnaissance Squadron, known as the **Black Cats** and formally established on 14 December 1960, to fly a pair of Taiwanese U-2Cs supplied by Lockheed under CIA sponsorship in June. Their first overflight of the mainland was accomplished on 13 January 1962, and thereafter, they continued regularly, up to three times a month and, by the end of the year, had collected imagery of China's nuclear plants in northwestern Qinghai and the uranium enrichment facility at Lanzhou, Gansu, without incident. On one occasion, on 28 May 1962, a U-2 pilot reported that his instruments had indicated that Chinese radar had locked onto his plane, but he took evasive action, and no missile was fired at him. The flights were extremely arduous, and 12-hour round-trip flights were not unusual.

The Chinese soon became aware of the incursions and, in July 1962, broadcast a reward of \$280,000 in gold to any Taiwanese pilot who defected with his plane. On 9 September, Colonel Chen Huai-sheng's U-2A was brought down by a SA-2 Guideline missile nine miles south of Nanchang, and he is thought to have used his parachute and survived, albeit briefly, and died in a hospital. On 1 November 1963, Major Chang Di-yeh U-2C was shot down after having been hit by two SA-2s over Jiangxi while on the return journey over the coast during a mission to photograph a nuclear weapons plant at Lanzhou and the Jiayuguan missile test site. He would remain in captivity until he was released in November 1982. On 23 March 1964, Major Liang Te-pei was drowned after he suffered an equipment failure and ejected into the sea during a high altitude signals intelligence flight along the periphery of Chinese airspace over the Taiwan Straits. Three months later, on 7 July, Colonel Lee Nan-ping was killed when his U-2G was shot down by an SA-2 over Fujian, having overflowed southern China from Cubi Point. On 27 November, several SA-2s missed a U-2 but one only narrowly, causing the pilot, on a mission to Lanzhou, to experience temporary blindness because of the missile's engine flare.

On 9 January 1965, Major Wang Shi-chuen's plane, on a mission to photograph the Paotow uranium enrichment plant with an infrared camera, was shot down southwest of Beijing by an SA-2, and he survived the crash with two broken legs. He would be released in Hong Kong in November 1982 with Major Chang Li-yi. In March 1965, a PLAAF MiG-21 fired two missiles at a U-2, but neither hit.

The fifth and last Taiwanese pilot to be shot down was Captain Huang Jung-bei, whose U-2C was hit by an SA-2 over Jiaxing on 9 September 1967. As well as these losses, a further six Taiwanese pilots were killed in accidents while on operational or training flights: Major Chih Yao-hua on 9 September 1962, Major Wang Cheng-wen on 22 October 1965, Captain Wu Tsai-shi, Major Yu Ching-Chang on 21 June 1966, Colonel Chang Hseih on 3 January 1969, and Major Huang Chi-Hsien on 24 November 1970. Reportedly, another unnamed pilot died when his U-2R crashed near Taiwan on 23 November 1973.

One explanation for the heavy casualties suffered by the U-2s flying to or from Taoyüan, amounting to five planes, was the difficulty in concealing the aircraft movements, especially takeoffs, from an airfield only 90 miles from the Chinese coast and under constant hostile radar and signals surveillance. Various countermeasures and decoy flights were tried, but the Chinese ground defenses received plenty of advance warning to prepare their Fan Song acquisition radars, even if the most advanced versions of the MiG-21 consistently failed to climb into range. Another complication was the duration of the U-2 flights flown to or from Taoyüan, which might take up to 12 hours to complete a 3,000-mile round-trip, and the fact that some target areas, such as the nuclear installations in the far northeast, could not be reached from airfields in **India** and **Pakistan**.

A total of 102 reconnaissance flights were completed by the U-2 until the program was terminated by President Richard Nixon following his visit to Beijing in February 1972, and the planes were returned to the United States in 1974. *See also AIRBORNE COLLECTION; SENIOR BOWL.*

UIGHURS. Formerly, the inhabitants of eastern Turkistan, the Uighurs came under Chinese Communist control in 1949, and the province was renamed the Autonomous Region of Xinjiang. Speaking their own Turkic dialect and being predominantly Sunni Muslim, the Uighurs campaigned unsuccessfully against the annexation of two million square kilometers of their country and against a policy of ethnic Han immigration and settlement.

Uighur separatists are considered a priority target for the **Ministry of State Security**, and their activities are under constant surveillance. During the 2001 invasion of **Afghanistan**, numerous Uighurs were captured by Coalition forces, accused of having attended al-Qaida training camps, and detained at Guantanamo Bay in Cuba, but in 2004, they were declared eligible for release; although, the U.S. Supreme Court ruled that they could

not be repatriated to China, where they would likely face persecution. Since then, two groups have been released to an island in the Pacific and another to Bermuda. *See also* GERMANY; NATIONAL MINORITIES.

UNITED FRONT DEPARTMENT (UFD). A branch of the **Chinese Communist Party**'s Central Committee, the UFD, formerly known as the United Front Work Department, is responsible for links with non-Communist émigré groups and has been identified by the **Canadian Security Intelligence Service (CSIS)** as an espionage organization active among Chinese émigrés and engaged in psychological warfare in pursuit of policy goals set by the Ministry of Foreign Affairs. A CSIS analysis described the UFD's role as "one of compelling overseas Chinese to take part in economical and technical espionage, whether through patriotic appeals or simple threats." *See also* OVERSEAS CHINESE.

UNITED STATES CONSULATE GENERAL. Until the move toward establishing formal diplomatic relations with Beijing began in 1973, the principal U.S. intelligence outpost responsible for monitoring the People's Republic of China was the Consulate General in **Hong Kong**, which accommodated a large **Central Intelligence Agency (CIA)** station under semitransparent political section cover and a **Federal Bureau of Investigation (FBI)** legal attaché. The CIA station chief and his staff were declared to the British colonial authorities, and they maintained a close relationship with the local **Special Branch**. Similarly, the FBI legat held regular meetings with the Director Special Branch, and some, such as Don Grove, later to be succeeded by Jim Martin and Mike di Pretoro, acquired considerable expertise on Chinese espionage. However, as a base for human source operations into the mainland, Hong Kong fared poorly, and Peter Sichel, who headed the CIA station between 1956 and 1959, recalled, "It was a total waste of time and a total death mission for anyone who got involved."

The Consulate General was itself a target for Chinese intelligence operations, and as the 1997 hand-over date approached, the FBI concluded that some of the local staff who were ineligible for foreign passports were vulnerable to recruitment by agents of the **Ministry of State Security**. *See also* TECHNOLOGY ACQUISITION.

UNITED STATES OF AMERICA (USA). During World War II, the U.S. **Office of Strategic Services (OSS)** established liaison missions in China to support the **Kuomintang**; although, the organization harbored many who supported the Communists and espoused the view that they were more effective in opposing the Japanese. This political debate, promoted by what became known as the “China lobby” in Washington DC, would prove controversial, but the administrations of both Harry S. Truman and Dwight D. Eisenhower supported Generalissimo **Chiang Kai-shek**.

During and after the Civil War in China, the United States sponsored the Nationalist cause and conducted intelligence operations through surrogates, including the **Civil Air Transport (CAT)**, which acted as a clandestine air force, infiltrating agents, dropping supplies, and distributing propaganda leaflets. CAT operations continued after the withdrawal to **Taiwan** in 1949, and according to news releases in Beijing, some 212 agents were parachuted into the mainland between 1951 and 1953, of whom most gave themselves up, were captured, or were killed.

In the absence of other sources of intelligence about developments inside the People’s Republic of China (PRC) during the Cold War, the United States relied upon overhead reconnaissance flights, flown since 1948 from **Japan, Pakistan, Taiwan, and Thailand**. Signals intelligence collection missions were undertaken by RB-50B aircraft of the 91st Strategic Reconnaissance Wing from Yokota, Japan.

As the PRC began to develop a nuclear weapons program, the test site at Lop Nor in western **Xinjiang** Province became a priority target, but it is so remote, being 2,000 miles from the coast, that it could only be monitored effectively by overflights and satellite passes. Since its construction in April 1960, the facility has been the subject of continuous surveillance by **U-2** aircraft, the SR-71 **Blackbird**, remotely controlled unmanned drones, and satellites.

Other targets include the missile test center at Shuangchenzi; the submarine-launched ballistic missile (SLBM) test facility in the Bohai Gulf, south of Huludao; the intermediate-range ballistic missile (IRBM) launch sites at Chiuchuan in Gansu Province and at Changxing; the gaseous diffusion plant at Lanzhou; and the space center at Chongqing. Overflights also concentrated on the 1st Submarine Flotilla headquarters at Jianggezhuang (near Qingdao), the bomber factory at Harbin, and the laser research laboratories at Changchun.

The only human sources emerging from the PRC during the Cold War tended to be refugees crossing into **Hong Kong**, who were the subject of routine screening in the hope of acquiring useful intelligence. Following the arrest of **Hugh Redmond** in 1951 in **Shanghai**, the **Central Intelligence Agency (CIA)** abandoned the use of officers working under non-official cover and, without any diplomatic premises on the mainland, was forced to depend almost entirely on technical collection, a relatively risk-free expedient, especially when CIA U-2 missions began flying from Peshawar in 1957. These incursions went unchallenged until May 1960, when the first aircraft was shot down by a SA-2 Guideline over Sverdlovsk. Thereafter, Nationalist pilots flew from Taiwan, and this continued without incident until September 1960, when Colonel Chen Huai-sheng's U-2A was shot down nine miles south of Nanchang. Nevertheless, the U-2 overflights continued, complemented by missions flown from Kadena on Okinawa by the SR-71, which flew for the first time in April 1962 but was not announced to the public, by President Lyndon Johnson, until the autumn of 1964.

Incursions into mainland airspace by the SR-71 were terminated in 1971, as part of Dr. Henry Kissinger's agreement with Beijing, but flights by pilotless aircraft continued, despite a heavy rate of attrition. Between 1964 and 1969, the **New China News Agency** reported that 19 such drones had been shot down. During the Cold War, the most aggressive aerial reconnaissance of the mainland was conducted by Taiwan, which lost up to 9 U-2s, 3 RB-57s, and 2 RF-101s over the mainland. Their operations, undertaken by the **Black Cat Squadron**, were pioneered by Dr. **Ray S. Cline**, the CIA station chief in Taipei between 1957 and 1962 and later the CIA's Director of Intelligence. During his posting to Taipei, Cline supervised a program of leaflet drops over the mainland, offering rewards for defectors with military information, and this resulted in the unexpected arrival of a **People's Liberation Army Air Force** pilot in his obsolete MiG-15 fighter.

After the PRC was established as a nuclear power, the U.S. intelligence community concentrated its collection effort on assessing the country's military power and on counter-proliferation, seeking to identify Beijing's sale of weapon and missile technology to nuclear threshold countries, principally **Pakistan**, **North Korea**, Syria, **Iran**, Libya, and Algeria. With the PRC's support, Pyongyang became the world's leading exporter of

ballistic missiles, enabling Iran to develop its Shahab-3, an MRBM with a range of 800 miles, test fired in July 1993.

The PRC has been the subject of numerous National Intelligence Estimates, which have reported on Beijing's nuclear weapons development program from the delivery in 1950 of Soviet R-1 rockets, designated the SS-1 Scanner. This SRBM, based on a German V-2 design, formed the basis of the Dong Feng (East Wind) project and would produce the **Long March** space launch vehicle.

Because of the difficulties in running human sources in Beijing, regarded as a "denied area" for the management of individual assets, the CIA inevitably has come to rely on technical means of collection; although, it has acquired valuable information from defectors, among them **PLANESMAN** in 1985, leaving the **Federal Bureau of Investigation (FBI)** to recruit "international assets" with access to the PRC's diplomats stationed in the United States. Inherent in such operations is the danger of hostile penetration, as was demonstrated when the **PARLOR MAID** investigation collapsed in 2005 with the exposure of Katrina Leung's double agent role for the **Ministry of State Security (MSS)** and the recruitment of **Ronald Montaperto**, a Defense Intelligence Analyst. However, the PRC's espionage appears to be directed primarily at providing a covert conduit for embargoed military and commercial technology, rather than the collection of intelligence through the development of clandestine networks of conventional spies. Indeed, the MSS's main targets in the United States seem to reflect the **Chinese Communist Party**'s domestic priorities, being **Uighur** separatists, the democracy movement, **Falun Gong** branches, **Tibetan** nationalists, and all issues affecting Taiwan.

In early 1995, a "walk-in" at the CIA station in Vientiane, Laos, offered to sell a collection of secret documents stolen from a classified PRC facility, which he had removed from his office and then couriered to himself overseas by DHL. Included in this material was compelling proof that the designs of the W-88 and W-76 Trident II missile warheads, the Minuteman III's W-78, the Peacekeeper's W-87, the Minuteman II's W-56, and the Minuteman II's W-62 had all been compromised, suggesting a major leak at Los Alamos. However, after a lengthy counterintelligence analysis, the CIA concluded that the walk-in was not only unreliable but also possibly a deliberate MSS plant dispatched to convey misleading data. However, the defector was later interviewed extensively by the FBI after he had moved to

the United States and judged to be authentic. *See also* AGEE, PHILLIP; AIRBORNE COLLECTION; AMERASIA; ARMED FORCES SECURITY AGENCY (AFSA); ARNOLD, JOHN; BERGERSEN, GREGG W.; BOEING 767-300ER; CAMPCON; CATHAY PACIFIC; CHANG FEN; CHANG HSIEN-YI; CHANG, THERESA; CHAO FU; CHAO TAH WEI; CHARBATIA; CHENG, PHILIP; CHEN YONGLIN; CHEUNG, MARK; CHI MAK; CHINA AEROSPACE CORPORATION (CAC); CHINCOM; CHINESE EMBASSY BOMBING; CHINESE NAVAL STRENGTH; CHINESE NUCLEAR WEAPONS; CHITRON ELECTRONICS; CHI TUNG KUOK; CHUNG, GREG; CIRCUS; COMINTERN; COX REPORT; CYBER ESPIONAGE; DA-CHUAN ZHENG; DEFENSE INTELLIGENCE AGENCY (DIA); DING, JIAN WEI; DIXIE MISSION; EAST TIMOR; ENGELMANN, LARRY; EWERT, ARTHUR; FIRMSPACE; FRANK, DESMOND DINESH; GARDELLA, LAWRENCE; GOWADIA, NOSHIR S.; GREAT BRITAIN; GUO WANJUN; HAINAN INCIDENT; HALPERN, ERIC; HANSON, HAROLD DEWITT; HANSON, HUANG; HAO FENGJUN; HIGH ALTITUDE SAMPLING PROGRAM (HASP); HINTON, JOAN; HONEYTRAP; HOU DESHENG; HUANG, ANDREW; HUTCHINSON, MILTON; ILLEGALS; *IMPECCABLE*, USNS; INDUSTRIAL ESPIONAGE; INFORMATION WARFARE; INFORMATION WARFARE MILITIA; INSTITUTE OF PACIFIC RELATIONS (IPR); INTELLIGENCE BUREAU OF THE MINISTRY OR NATIONAL DEFENSE (IBMND); INTERNATIONAL LIAISON DEPARTMENT (ILD); JIN HANJUAN; KAMISEYA; KEYSER, DONALD W.; KHAN, AMANULLAH; KIM SOO-IM; KOREAN WAR; KOVACS, WILLIAM; KYRGYZSTAN; LAM, WAI LIM WILLIAM; LAU, HING SHING; LEE, DUNCAN C.; LIANG XIUWEN; LIAO HO-SHU; LI FENGZHI; LILLEY, JAMES; LIN HAI; LI QING; LI SHAOMIN; LIU, HENRY; LO CHEN-HSU; LOVELL, JOHN S.; LU FU-TAIN; LUNEV, STANISLAV; MACKIERNAN, DOUGLAS; MAIHESUTI, BABUR; MENG, XIAODONG SHELDON; MIN GWO BAO; MOO, KO-SUEN; NAHARDANI, AHMAD; NANDA DEVI; NATIONAL SECURITY AGENCY (NSA); NEEDHAM, JOSEPH; NEPTUNE; OGGINS, ISAIAH ("CY"); OU QIMING; OVERSEAS CHINESE; OWENS REPORT; PENG, YEN CHIN; PIQUET, JOSEPH; POLLARD, ANNE HENDERSON; PRICE, MILDRED; PROJECT 863; QIAN XUESEN; REGAN, BRIAN P.;

REVOLUTIONARY UNION; ROTH, JOHN REECE; SENIOR BOWL; SERVICE, JOHN S.; SHAN YANMING; SHEN JIAN; SHENZHEN DONJIN COMMUNICATION COMPANY; SHESU LO, ROLAND; SHRIVER, GLENN D.; SHU QUANSHENG; SINO-SOVIET SPLIT; SINO-VIETNAMESE WAR; SK-5; SMEDLEY, AGNES; SOONG, CHARLIE; SORGE, RICHARD; SUCCOR DELIGHT; TAI SHEN KUO; TAKHLI; TECHNOLOGY ACQUISITION; TECHNOLOGY COUNTERFEITING; TITAN RAIN; TOPPER; TSOU, DOUGLAS; TSU, WILLIAM CHI-WAI; UNITED STATES CONSULATE GENERAL; VELA; WANG HSI-LING; WANG MINCHUAN; WANG-WOODFORD, LAURA; WAVELAB INC.; WEI LEFANG; WEN HO LEE; WORTON, WILLIAM A.; WU BIN; XIAN HONGWEI; XIONG XIANGHUI; XU BING; XU WEIBO; YANG FUNG; YANG LIAN; YARDLEY, HERBERT O.; YU, PAUL; YU JUNGPING; ZHANG, MICHAEL MING; ZHONG MING; ZHOU ENLAI; ZHU YAN.

UZBEKISTAN. A member of the **Shanghai Cooperation Organization (SCO)** since June 2001, Uzbekistan has received considerable investment from China in an effort to exercise greater local influence and to diversify the country's dependence on oil imported by sea. The China National Petroleum Company has partnered the national oil company, Uzbekneftegaz, to develop the Mingulak oilfield in Namangan and has begun exploration in Ustyurt, Bukhara-Khiva, and Fergana. Under pressure from the SCO, the Uzbek government in 2008 terminated an agreement with the U.S. Air Force to fly missions in support of operations in **Afghanistan**.

V

VELA. The Spanish word for “watchman,” VELA was the codename for a secret **United States** Air Force surveillance satellite project, which was operational between October 1963 and April 1970, to monitor Chinese nuclear detonations.

VIETNAM WAR. Interception of Chinese signals by the U.S. **National Security Agency** in 1965 revealed that 80 to 90 percent of U.S. Air Force air raids over North Vietnam’s northeast quadrant were being compromised by early warning alerts supplied from ground radar sites inside China. Furthermore, the Chinese were found to be predicting the reconnaissance flights of Strategic Air Command drones, resulting in the loss of up to 70 percent of the unmanned aircraft. A study concluded in April 1967 and codenamed PURPLE DRAGON traced the source of the leak to an encrypted single sideband channel that linked Da Nang to Bien Hoa and provided 20 hours’ advance notice of the drone missions. Even without being able to read the messages and relying solely on traffic analysis, the experts were able to predict 18 out of 24 operations. New security countermeasures were introduced to improve communications security, and the losses dropped dramatically.

VOROBIEV, E. D. The director of the Soviet atomic weapons production facility at Chelyabinsk-40, E. D. Vorobiev was a colleague and close friend of Igor Kurchatov and, in April 1956, was appointed to supervise the transfer of Soviet nuclear technology to China. He moved to Beijing in May 1957 and oversaw the construction of the Northwest Nuclear Weapons Development Establishment near the city of Haiyan in a remote corner of Qinghai Province. Also known as the Qinghai Provincial Mining Zone, the Ninth Academy, Factory 221, and Koko Nor, the site was designed as a replica of the Soviet facility at Sarov designated Arzamas-16. Assisted by E. A. Negin, the chief weapons designer from Arzamas-16, together with his engineering team of N. G. Maslov and V. Y. Gavrilov, Vorobiev began construction of a huge uranium enrichment facility, covering seven acres, at Lanzhou in Gansu Province and selected Jiuquan as the location for a reactor, designated Plant 404, and a neighboring weapons assembly plant.

However, Soviet collaboration was terminated in August 1958 when **Mao Zedong** declined Nikita Khrushchev's demand for Soviet military bases in China and for control over China's foreign policy. Accordingly, Vorobiev and his colleagues were withdrawn during the autumn, ostensibly on leave but never to return. In consequence, all work on the plutonium production reactor was suspended in August 1960.

Concern about Soviet knowledge of every aspect of the **Chinese nuclear weapons** program prompted a decision to relocate the Haiyan establishment to several different sites, some of them underground, near Zitong in northwestern Sichuan Province, where it was renamed the Research and Design Academy of Nuclear Weapons. As well as being unknown to the Soviets, the narrow valleys around Zitong had the added advantage of being almost permanently obscured from overhead reconnaissance by dense cloud cover. *See also* SOVIET UNION.

W

WAISHIJIU. Within the Foreign Affairs Bureau of the **Ministry of Public Security**, the counterintelligence branch, known as *Waishiju*, was headed until his defection in 1985 by **Yu Qiangsheng**.

WANG HSI-LING. The chief of Taiwan's **National Defense Intelligence Service**, Vice-Admiral Wang Hsi-ling was an attaché at the Republic of China (ROC) embassy in Washington DC in 1984 when the dissident journalist **Henry Liu** was murdered at his home in Daly City, California.

During the trial of Chen Chi-li, a member of the mafia-like United Bamboo Gang, who was convicted of shooting Henry Liu, evidence emerged that implicated Vice-Admiral Wang. After some initial resistance from President **Chiang Ching-kuo**, the **Federal Bureau of Investigation** interviewed Wang, and while he denied any involvement in the murder, he did admit that he had wanted Chen to "teach Liu a lesson." However, three polygraph examinations indicated that Wang had been less than truthful in his denials of causing the murder, and he was eventually convicted and sentenced to life imprisonment by a military tribunal in April 1985. He served his sentence at Taiwan's Garrison Command facility, where political prisoners were normally held, and his family was allowed daily visits to his cell suite, which included a kitchen and study. Less than six years later, Wang was released, together with Chen and another conspirator, Wu Tun. Rumors persist that the order to murder Liu was actually initiated by Chiang Hsiao-wu, President Chiang Ching-kuo's second son (grandson of **Chiang Kai-shek**), who was linked to Chen Chi-li.

In 2007, Wang, who had negotiated while in Washington the transfer of two former U.S. Navy *Tench*-class submarines to Taiwan, renamed the *Hai Shih*-class, participated in a ceremony involving the ROC's navy submarine fleet. *See also* MILITARY INTELLIGENCE BUREAU (MIB); NATIONAL SECURITY BUREAU (NSB); UNITED STATES OF AMERICA (USA).

WANG MINCHUAN. The director of Chinese studies at Baghdad University since October 1959, 40-year-old Professor Wang Minchuan

defected to the **Central Intelligence Agency** in June 1961 while on a visit to Greece. *See also* UNITED STATES OF AMERICA (USA).

WANG-WOODFORD, LAURA. On 24 December 2007, Laura Wang-Woodford, a U.S. citizen and director of Monarch Aviation, a company based in Singapore that for 20 years had imported and exported components for military and commercial aircraft, was arrested at San Francisco airport, having arrived on a flight from **Hong Kong**, and was charged with the illegal export of embargoed aircraft parts to **Iran**. Also indicted was her British husband, Brian Woodford, who was the company's chairman; although, he was never arrested.

In a 20-count indictment issued in New York in 2003, Wang-Woodford had been charged with operating Jungda International, a Singapore-based successor to Monarch, and accused of supplying restricted aircraft parts to Iran. At the time of her arrest, Wang-Woodford had been carrying catalogs from the China National Precision Machinery Import and Export Corporation, a firm identified by the U.S. Treasury as a proliferator of weapons of mass destruction.

In March 2009, Wang-Woodford pleaded guilty to conspiracy charges, was sentenced to 46 months' imprisonment, and agreed to forfeit \$500,000. An investigation conducted by the **Federal Bureau of Investigation** concluded that Monarch Aviation was a front company sponsored by the **Ministry of State Security**. *See also* TECHNOLOGY ACQUISITION; UNITED STATES OF AMERICA (USA).

WATT, GEORGE. In 1967, a Vickers engineer, George Watt, was convicted of espionage in Lanzhou and served three years' imprisonment in Beijing.

WAVELAB INC. On 6 June 2008, WaveLab Inc. of Reston, Virginia, was sentenced to one year of supervised probation, a \$15,000 fine, and forfeiture of \$85,000 for the unlawful export of hundreds of controlled power amplifiers to the People's Republic of China (PRC). The prosecution was brought by the Department of Commerce's Bureau of Industry after WaveLab purchased the amplifiers with an assurance that the equipment would not be exported. The undertaking had been signed by Walter Zheng as WaveLab's chief executive officer on 5 March 2008. Walter Zheng was also Zheng Guobao, a graduate of the PRC's University of Science and

Technology in Hefei, where he had obtained bachelor's and master's degrees in electrical engineering. *See also* TECHNOLOGY ACQUISITION; UNITED STATES OF AMERICA (USA).

WEI LEFANG. A Chinese financier who peddled nuclear weapons components to Iran, Wei Lefang was indicted in April 2009 for laundering tens of millions of dollars through half a dozen New York banks. According to the Manhattan district attorney, Robert Morgenthau, Wei had duped the banks with an assortment of aliases and phony businesses, in spite of having a federal banking ban against him, and was charged with conspiracy and falsifying records.

Wei had been barred from conducting business with U.S. banks in 2006 because of his involvement in Iran's program to develop weapons of mass destruction. To circumvent the ban, Wei had adopted the expedient of using false names and nonexistent companies to collect funds channeled through unsuspecting banks, which included Citibank, Wachovia/Wells Fargo, Bank of America, Standard Charter Bank, and JPMorgan Chase. The shipments of illegal matériel had been made from Wei's China-based company, LIMMT Economic and Trade Company. When Morgenthau announced his intention to apply for Wei's extradition from China and was asked about Chinese cooperation, he replied, "We're always optimists." *See also* UNITED STATES OF AMERICA (USA).

WEIQI. A popular Chinese game of warfare where the goal is to slowly surround the enemy, taking a little territory while even giving some away, as part of an overall strategy, until the adversary is forced into a corner and surrenders. The People's Republic of China's foreign policy, in many respects, can be said to mirror this game.

WENCHANG SATELLITE LAUNCH CENTER. Located on the island of Hainan, the Wenchang Satellite Launch Center is closer to the equator than any other similar site in China and is intended to accommodate launch vehicles designed to send space stations and satellites into orbit and provide support for manned space flight and future lunar missions. In 2013, it will replace the Xichang Satellite Launch Center as China's primary launch facility and operate in parallel with the Shuang Cheng Tzu Missile and Space Test Center in Jiuquan and the Wuzhai Missile and Test Center in Taiyuan, 250 miles southwest of Beijing. Mission control for lunar and

manned flights is conducted by the Beijing Aerospace Flight Control Center, with the Xi'an Satellite and Telemetry Control Center tracking the vehicles. Further coverage is supplied by four PLA space tracking ships and by one overseas site, at Swakopmund in Namibia. *See also* CHINESE NUCLEAR WEAPONS; LONG MARCH; TECHNOLOGY ACQUISITION.

WEN HO LEE. Originally from **Taiwan**, where he was born in 1939, Wen Ho Lee had been one of the three best suspects on a list compiled by the **Federal Bureau of Investigation (FBI)** that had contained 70 others at Los Alamos known to have traveled to China between 1984 and 1988. Of the three, one was Sylvia Lee, Wen Ho's wife, who worked at Los Alamos as a data entry clerk with a top secret clearance.

Lee first attracted the FBI's attention in December 1982 when he contacted **Min Gwo Bao** by telephone to offer his support and suggest he could find out "who had squealed" on the scientist. As Min Gwo Bao was already the subject of a surveillance operation codenamed **TIGER TRAP**, it was extended to cover Dr. Lee.

The **KINDRED SPIRIT** investigation turned out to be a nightmare for all concerned, not least because of the complicated background to the case. Stymied over the original theft from the Lawrence Livermore Laboratory, on which the FBI had failed to gather enough evidence to mount a prosecution, it did lead the mole hunters to Wen Ho Lee, who had been recorded in December 1982 making a telephone call to Min Gwo Bao. Although he had initially denied the conversation, Wen Ho Lee admitted it when confronted with the evidence and then acted as an agent for the FBI, attempting to entrap the suspect in telephone calls and a personal meeting in California, during which he had worn a wire. This attempt had failed; although, during the course of the operation, the FBI had learned, through a polygraph examination, that Wen Ho Lee had been passing information to Taiwan since 1978. This aspect of the investigation was abandoned in March 1984, but when his name appeared as a suspect in the **KINDRED SPIRIT** case, the FBI initially concealed the fact that between 1985 and 1991 both Wen Ho and Sylvia had been used as the FBI's informants, submitting regular reports on potential breaches of security at Los Alamos and on details of official visitors from the People's Republic of China (PRC). In the years 1986 and 1987, America's nuclear weapons laboratories received an average of 500 visitors from countries listed as "sensitive" by

the Department of Energy (DoE), and this figure was to rise within 10 years to 1,700, including 785 from republics of the former **Soviet Union**, so there had been plenty for Sylvia to report on. The official statistic for visitors from China rose from 67 to 410.

In February 1994, Lee again attracted attention when he was greeted warmly by Dr. Hu Side, the chief of the **Chinese nuclear weapons program**, who was on an official visit to Los Alamos. The encounter was strange because Lee had never reported having met Dr. Hu.

The embarrassment for the FBI in May 1996, after an enquiry lasting 8 months and the pursuit of 12 possible leads, was that their own informant, Wen Ho Lee, had been identified as the “only individual with the opportunity, motivation and legitimate access” to both W-88 weapons systems information known to have been betrayed to China. For reasons that have never been fully explained, no action was taken against Wen Ho Lee, even to limit his access to classified material, and he was not questioned by the FBI until he was polygraphed in December 1998. In the meantime, the FBI had attempted to entrap Lee with a telephone call from a Cantonese-speaking special agent who had introduced himself as a **Ministry of State Security** official and inquired if there was any material to go back to the PRC. He also asked when Lee was intending to visit the PRC again, but Lee had been very circumspect and noncommittal. However, as the FBI noted, Lee had not reported the strange call as he should have done, and it was considered odd that Lee had not remarked on the request for material to go back to the PRC unless, of course, previous consignments had been sent.

The charade was inconclusive, and certainly did not prove Lee had been engaged in espionage. As a counterintelligence strategy, it was altogether pretty futile. The FBI agent had spoken Cantonese, not the Mandarin usually used in Beijing, so his approach may not have been entirely convincing, and naturally he could not use any pre-agreed recognition signals or passwords. Nevertheless, the FBI felt it was significant that Lee had failed to declare the call and then, when challenged, procrastinated about precisely what had happened. A search of his office and computer had failed to reveal what had happened to thousands of deleted and copied files, and at least seven computer tapes had disappeared.

Lee was interviewed formally by the FBI in January 1999 and again in March and finally arrested in December 1999, but the entire case had been

compromised by the premature, front-page publication of one version of it by the *New York Times* on 6 March 1999, based on a leak of evidence given to a Congressional committee. According to the FBI Director Louis Freeh, who previously had severely reduced the number of personnel assigned to counterintelligence in general and to Chinese counterintelligence in particular, “The reporting was unconscionable,” but his determination to have the matter go to trial was undermined by Attorney General Janet Reno, who decided, under political pressure from “several Asian-American groups” that claimed “the FBI was persecuting Lee based on his ethnicity,” to abandon the indictment and reach a plea agreement based on a single relatively minor charge of mishandling classified documents. Freeh had been outraged by this interference, recalling that Lee had gone to extraordinary lengths to download, copy, and remove from a secure national laboratory 40 hours of work stretching over 70 days. Even after Lee’s security clearances were stripped at Los Alamos, he made attempts to reenter the weapons design area, including one try at 3:30 A.M. on Christmas Eve of 1998, not exactly a normal work hour.

Lee was kept in solitary confinement, supposedly to prevent him from compromising any further information and from fleeing the country, and although the FBI did not prescribe the conditions in which he was held, it was hoped that, in custody without bail, the scientist would crack and confess. But after 227 days of solitary confinement in the Santa Fe County Detention Center, in what Judge James Parker described as “demeaning unnecessarily punitive conditions,” he was released in September 2000 after accepting Reno’s plea bargain. The prosecution dropped 58 of the 59 charges in return for information on the whereabouts of the crucial missing seven tapes. With the promise of immunity, Lee admitted there had been more like 17 or 20 tapes, but insisted he had discarded them in a trash dump. None was ever recovered, despite testimony that the missing data could “in the wrong hands change the global strategic balance.” Thus, Lee was convicted of a single felony and sentenced to time already served. In 2006, he received a \$1.6 million settlement of his claim for breaches of his Privacy Act rights.

A counterintelligence assessment of Wen Ho Lee made a convincing argument for him having been recruited by Li Deyuan at a conference held at Hilton Head, South Carolina, in 1985, and this had heralded his first known trip to Beijing the following year, to address the Tenth International

Conference on Fluid Dynamics. The FBI had briefed Lee before his attendance and had also approved a second trip, in 1988, when he had met Hu Side and the IAPCM (Institute of Applied Physics and Computational Mathematics) director, Zheng Shaotang, in his hotel bedroom, but upon his return from each, when he had listed the names of the scientists he had met, he had denied having been asked about any classified information. Years later, he would admit that he had helped the Chinese with hydrodynamic nuclear codes on both occasions. A third invitation, to both Wen Ho and Sylvia in early 1989, to attend a conference on Experimental Fluid Mechanics at Chengdu, was declined on instructions of the increasingly anxious head of security at Los Alamos, and although they could travel to the PRC no more, there were no restrictions placed on trips to Taiwan and **Hong Kong**, which they visited in March and December 1998 and again in 1999. The FBI suspected that, at least on the trip to Hong Kong, Lee had taken the opportunity to slip across the border to meet his contacts, and the FBI traced a purchase from American Express of some illicit travel. The FBI was also suspicious about Lee's employment of a PRC national, who was a graduate student, as his assistant in Los Alamos and his later attempts to conceal the nature of the work they had shared.

Lee had been caught in numerous security violations at Los Alamos, but none amounted to proof of espionage, a charge Lee consistently denied. Concerned about the apparent disappearance of seven computer tapes onto which Lee had downloaded huge quantities of classified information, the prosecution plea-bargained a disastrous deal, which left it with almost nothing and certainly not the missing computer files. Why had Lee transferred thousands of classified files onto an unclassified, unprotected system? Why had he deleted hundreds of computer files after he had lost his security clearance? What had driven him to make numerous attempts to gain access to his office within the Los Alamos secure area after he had been barred from it? Had he been a spy, and if so, for whom had he worked, the PRC, or Taiwan, or both?

The case wrecked the career of the former **National Security Agency** analyst Notra Trulock, who had tried and failed to impose some discipline and cohesion within the DoE's counterintelligence division while serving as the department's director of intelligence. Trulock was falsely accused of having race-profiled Wen Ho Lee, recommending him for investigation on racial grounds, but although this baseless charge was taken up in the media

with enthusiasm, there was no substance in it. Lee had been an obvious candidate from KINDRED SPIRIT's outset, but the FBI had appeared curiously lacking in drive to take the necessary steps until Congress began to take evidence about technology transfer to China and was tipped off to DoE security lapses. Trulock's testimony in 1998, published in what became the **Cox Report**, released in May 1999, had proved devastating, highlighting a political reluctance to undermine the White House's determination to improve Sino-American relations. Incredibly, when the sheepish DoE officials were actually presenting their evidence, Lee himself was in Taiwan, on a trip for which he had been refused permission. He had gone anyway, on an undeclared consultancy contract to the Chungshan Institute of Science and Technology, an academic body known to be engaged in military research. *See also TECHNOLOGY ACQUISITION; UNITED STATES OF AMERICA (USA).*

WON CHONG-HWA. Aged 34, Won Chong-hwa was a **North Korean** intelligence officer thought to have been responsible for the abduction of more than 100 people from the PRC and **South Korea**. She also operated in Seoul, seducing South Korean officers to gather information for the North Korean State Security Department (SSD), and when she was arrested, one of her victims, an army officer named Lieutenant Hwag, was also taken into custody, as was Kim Tong-sun, who had acted as her courier, carrying information across the border.

Born in Chongjin in the Democratic People's Republic of Korea's (DPRK) Hamgyong Province, Chong-hwa's father had died when she was a child, and she was recruited as an agent when she was just 15. She attended the Kim Il-Sung Political and Military University sponsored by the Alliance of Socialist Working Youths and, in 1989, joined a special unit, where she received espionage training, learned South Korean geography, and adopted a southern accent. In 1992, after signing a confidentiality agreement, she sustained a head injury, forcing her withdrawal from the course, but then in 1996, she was imprisoned for theft at Pyongyang's Paradise Department Store. She was also convicted of stealing five tons of zinc but, to avoid a death sentence, fled across the Yalu River to China.

In 1998, she started a small business in Jilin Province but was traced by the North Korean authorities and invited, aged 25, to join the SSD. A file later compiled by South Korea's Joint Public Security Affairs Investigations Headquarters concluded that she began her espionage in China by tracing

other North Korean refugees or “renegades” in the cities of Yanji and Huichun in Jilin.

In March 2001, as Won Chong-hwa prepared for a mission to South Korea, she became pregnant by a South Korean businessman, named Choe, who had visited China to meet a prospective wife through an international matchmaking service. Instead of obtaining an abortion, the North Koreans encouraged her to keep the baby and marry the father. Once established in South Korea, she divorced her husband and, posing as a refugee from the north, offered herself to the South Korean National Intelligence Service (NIS). Meanwhile, she founded an import business in Kyonggi Province and traveled to China frequently to buy aquatic products; although, on each visit, she reported to her SSD handlers. Between October 2002 and December 2006, she made 14 trips to China, and her principal role appears to have been the seduction of Korean businessmen linked to the South Korean NIS. She also submitted reports on leading political figures, including Hwang Jang-yop, former secretary of the North Korean Workers’ Party, and Kim Sung-min, representative of the Radio Free North Korea, who was a leader of the North Korean refugees in South Korea. She was paid \$34,000 in cash and was told that her operation had been assigned a budget of \$60,000.

One part of her assignment was the assassination of refugees, and she was issued with needles and a quantity of poison to perform her task. From 2005, she registered with a matchmaking service, identifying herself as a “military officer in active duty,” expressing a preference for men in her category. She made contact with dozens of lovesick officers, including a Major Kim, and passed their personal details to her handlers.

Eventually Won Chong-hwa fell in love with Lieutenant Hwang, an officer based in Kangwon Province, who was seven years her junior, and even after he realized his lover was a spy, he stayed with her and planned to stow away on a ship to Japan. Assisted by him, between September 2006 and May 2007, Won Chong-hwa gave more than 50 talks on military security topics to personnel at South Korean bases, but in them, she often lauded North Korea and supported Pyongyang’s nuclear program. She also visited Japan three times, claiming to be meeting prospective husbands, but in reality, she was tracing North Korean refugees.

According to the South Korean dossier on Won Chong-hwa, who was arrested on 15 July 2007, her father had been killed in 1974 as he attempted

to cross to the South as a spy, and Kim Tong-sun, her 63-year-old foster father, was a North Korean refugee who entered South Korea from Cambodia in 2006. He too had been trained by the SSD, and Won's younger half-sister, with the same father but a different mother, was also a spy, and her younger brother was an SSD driver. At her trial in Suwon in September 2008, Won Chong-hwa made a full confession.

WORTON, WILLIAM A. In 1935, a U.S. Marine Corps officer, Major William A. Worton, joined the Far East Section of the U.S. Navy's Office of Naval Intelligence (ONI). A World War I veteran of the Aisne-Marne offensive and having undertaken 3 assignments over 10 years in China and fluent in Mandarin, Worton had attended an ONI conference and recommended that a Fleet Intelligence Officer based in **Shanghai or Hong Kong** should develop a network inside and outside **Japan** to report on Japanese fleet movements. The proposal, later rejected by ONI, as there was a reluctance to share intelligence with the British, was initially accepted, as was Worton's offer to volunteer for the mission.

By 1935, the ONI had already developed a group of coast watchers in China to monitor Japanese shipping and established an espionage network that included a Harvard exchange scholar at the Imperial University in Tokyo and a member of the Asiatic Primate Expedition.

In the late summer of 1935, Worton, accompanied by his wife, traveled to China via **France** and the Suez Canal to avoid being detected by Japanese agents and carried three passports. One identified him as an attaché in Peking, another as a U.S. Government employee conducting official business, and the third as "Archibald Robertson." Having settled in Shanghai, he moved to Nanking, where he met Tai Lai, an old acquaintance from his previous assignments in China; Worton believed he had to trust someone, and since Tai "knew the war was coming," he agreed to steer potential agents, both Chinese and European, to Worton, who was under no illusion that these same agents would report to Tai as well. His agents, who were to operate in Sasebo, Nagasaki, and Shimonoseki, included the Austrian artist Fritz Schief, Franzi von Sternburg (another Austrian), and various ethnic Chinese, who achieved some success.

In 1936, Worton was replaced by another U.S. Marine Corps officer, Captain Charles C. Brown, and returned to the **United States** on a ship, which stopped briefly at Yokohama where, he later reported, he did not leave his stateroom. He later claimed, in an oral history contributed in 1969,

that his mission had “opened the eyes” of the Navy to the fact that there were marines “who were capable of making decisions affecting the Navy” and that his contacts with Tai Lai had paved the way for his subsequent assistance to the Americans during World War II, which included the establishment of a weather station in Mongolia. In 1946, Tai also was instrumental in freeing some Marines who were prisoners of the Communists.

No official records survive of Worton’s ONI mission, which was revealed 10 years after his death in 1973. After his retirement, Major General Worton was appointed chief of the Los Angeles Police Department.

WO WEIHAN. *See* MILITARY INTELLIGENCE BUREAU (MIB).

WU BIN. A Ministry of State Security agent codenamed SUCCOR DELIGHT by the Federal Bureau of Investigation, Wu Bin was arrested by U.S. Customs in October 1992. *See also* TECHNOLOGY ACQUISITION; UNITED STATES OF AMERICA (USA).

WU SHU-TUNG. In October 1967, Wu Shu-Tung traveled from **Hong Kong** to Taipei to defect and was greeted as the most senior mainland Chinese Communist ever to have switched sides. He had headed the Chunghwa Book Company in **Shanghai** and had headed the office in Hong Kong but was also well connected to the leadership in Beijing, which he had visited twice a year since 1950, consulting with **Zhou-Enlai** and Shen Yu-pin. As a member of the Anti-Persecution Struggle Committee, he had played a significant role in the 1967 riots in Hong Kong, and in his debriefing, he gave a detailed account of the operations conducted by the Committee’s subordinate sections, which included the smuggling of weapons, the distribution of propaganda, and the development of measures intended to intimidate the local population.

X

XIAN HONGWEI. In April 2011, two People's Republic of China businessmen, 32-year-old Xian Hongwei, president of the Beijing Starcreates Space Science and Technology Development Company Limited, and his 33-year-old vice president, Li Li, were indicted in Alexandria, Virginia, on charges of attempting to purchase thousands of radiation-hardened microchips in violation of the Arms Export Control Act, having been arrested in Hungary in September 2010 and extradited.

Beijing Starcreates had been engaged in the import and sale of programmable read-only memory microchips to the government-controlled China Aerospace Science and Technology Corporation, which designs and produces strategic and tactical missile systems and launch vehicles. When the two men approached a company in Virginia and offered pay to \$64,500 for 40 of the hardened microchips and inquired about purchasing 1,000 chips, apparently in staggered purchases they hoped would avoid suspicion, the vendor contacted U.S. Immigration and Customs Enforcement, which mounted a sting operation. In June 2011, both men pleaded guilty and were due to be sentenced in August. *See also UNITED STATES OF AMERICA (USA).*

XIE QIMEI. The first **Ministry of State Security** station chief posted to Washington DC under first secretary diplomatic cover in the cultural section, Xie Qimei was **Jim Lilley**'s counterpart as China's "designated spy" at the PRC embassy; although, his position was never publicly acknowledged in the same way.

Little was known about Xie's career, and some believed he was working under alias, but clearly, he must have had a relationship with **Deng Xiaoping** to have been entrusted with the assignment. A cold, hard individual, taller than most of the other members of the embassy staff, he was often observed as being aloof and detached from his colleagues. Between 1984 and 1985, he was the second-ranking Chinese official at the PRC's Permanent Mission to the United Nations, a post often filled by intelligence officers. He then moved to a United Nations Secretariat position as under-secretary-general of the Technical Development Department. In 1995, he was identified as a "specially invited editor" of a

Chinese book, *China and the United Nations: Commemorating Fifty Years of the United Nations*.

XINHUA. The People's Republic of China state domestic news agency, Xinhua, posts correspondents overseas and routinely provides the **Second Department** of the **Ministry of State Security** personnel with journalistic cover. It provides the Chinese leadership with classified reports on domestic and international events and demonstrates many of the characteristics of a regular intelligence agency. However, it also has a reputation for engaging in propaganda, and some of its staff have been corrupt, with *China Youth Daily* reporting the imprisonment of two journalists who accepted gold ingots as bribes in return for not reporting coal mining accidents.

The Washington DC office of Xinhua was headed by Lu Ping when he first met Katrina Leung, the **Federal Bureau of Investigation** asset codenamed **PARLOR MAID**. In July 2010, it was reported that Wan Wuyi, the 58-year-old head of propaganda at Xinhua, where he had worked for the past eight years, had defected while attending a course at Oxford University. *See also NEW CHINA NEWS AGENCY.*

XINJIANG. Decades of ethnic conflict in Xinjiang between the Turkic-speaking Muslim **Uighurs** and the transplanted Han migrants, who now amount to 40 percent of the population, has left the province a source of great concern to Beijing, where attempts to suppress local separatists and jihadists influenced by Afghan and Pakistani religious extremists have been considered a strategic priority for the security and intelligence apparatus.

The East Turkistan Islamic Movement is considered a terrorist organization, and since the 2001 Coalition invasion, militant Uighurs have been detained in **Afghanistan** while fighting alongside the Taliban. The separatists have conducted an increasingly violent campaign in Xinjiang, where an estimated 197 people were killed and 1,000 injured in rioting in July 2009, and were blamed for the assassination of a Chinese diplomat in **Kyrgyzstan** the previous year. In October 2009, an al-Qaida leader, Abu Yahya al-Libi, called on the Uighurs to prepare for "a holy war." The **Ministry of State Security (MSS)** intervened prior to the opening of the 2008 Beijing Olympics to arrest activists to prevent an alleged atrocity planned to disrupt the event and maintains a close watch on the Uighurs, who have been linked to al-Qaida, and on cross-border smugglers, whose trade in heroin has created a local HIV/AIDS epidemic.

Evidence that MSS personnel in **Germany** had been targeted against the local Uighur refugees in Munich emerged in December 2009 when a Chinese consular officer was expelled, having been accused of spying on the expatriate community. In a similar case in April 2011, a 64-year-old Uighur identified only as “L” was charged with having passed information about the local Uighur émigrés to the MSS between April 2008 and December 2009.

Disaffection in Xinjiang has been exacerbated by official corruption, one complaint both the Han and Uighur communities agree on. Their target was Wang Lequan, the powerful regional party chief since 1994 who was accused of channeling lucrative investment to his home town of Shouguang in Shandong. Although considered immune even from the **Central Discipline Inspection Commission**, eventually Wang was dismissed in April 2010.

Uighurs captured in Afghanistan and detained at Guantanamo Bay have been among the groups declared safe for release from American custody; although, the U.S. Supreme Court has ruled that they are not eligible for return to China where they could expect persecution, arrest, and execution. Accordingly, a few have been granted asylum in the Pacific and by Bermuda. *See also* SHANGHAI COOPERATION ORGANIZATION (SCO).

XIN PEIWEN. A member of an army cultural troupe, Xin Peiwen was the leader of three entertainers who were convicted in 1988 of plotting to persuade pilots to defect from the People’s Republic of China.

XIONG XIANGHUI. Like many of his revolutionary colleagues, Xiong Xianghui came from the educated elite that ruled prerevolutionary China. Born in Shandong on 12 April 1919, the son of a country magistrate, he began his revolutionary career in 1936 as a student where he was spotted by **Zhou Enlai**, who assigned him the task of infiltrating the **Kuomintang (KMT)**. At a meeting of potential staff members, Xiong impressed Hu Tsung-nan, one of the KMT’s ablest generals, and by the next year, Xiong was appointed to Hu’s personal staff, a position he retained for the next decade. Xiong was told by another early Chinese Communist, “*ni shi Zhou Enlai chouhua de yige leng qizi.*” (You are one of the dormant chess pieces planned and placed by Zhou Enlai.)

Xiong's greatest coup was achieved in 1947 at the height of the Chinese Civil War when he was about to leave **Shanghai** to attend university and was intercepted by **Chiang Kai-shek**'s secret police to be escorted back to General Hu. Xiong feared his links to the Communists had been exposed, but he was met with broad smiles from Hu, who explained that his army was about to attack **Mao Zedong**'s base in Yan'an, in northwest China. He instructed Xiong to study the plans in a locked room and advise on the assault strategy, thereby allowing Xiong the opportunity to warn the Communists and give Mao and Zhou time to evacuate the city. Although Hu claimed to have captured Yan'an, trumpeting a great victory, the city had been abandoned, with the **People's Liberation Army (PLA)** escaping to the hills. Mao later said Hu's information had been worth "several divisions." The episode proved to be a turning point in the war, and two years later, a triumphant PLA entered Beijing.

After the attack on Yan'an, Hu allowed Xiong to take the interrupted study leave, and he later graduated with a degree in political science from Western Reserve University. Upon his return, Xiong startled his former KMT associates by joining the new diplomatic service of the People's Republic of China (PRC), where he became one of Zhou's most trusted aides, attending the 1954 Geneva Conference on Indochina, when the PRC and **Great Britain** agreed to exchange chargés d'affaires. In 1962, Xiong himself was appointed to the post in London.

During the **Cultural Revolution**, Xiong was denounced as a revisionist by Red Guards, but Mao authorized Zhou to intercede, and while many of Xiong's colleagues were exiled to the Chinese hinterland, Xiong remained in Beijing.

On Mao's instructions, Xiong sat in on discussions with four of the PLA's most senior generals, who examined the threat posed by the **Soviet Union** and the **United States** and subsequently authored a paper that advocated playing the "American card" against the Soviets. This strategy paved the way for the 1971 talks with Henry Kissinger, which Xiong attended as Zhou's assistant and prepared President Richard Nixon's visit to China the following year. Xiong was also a member of the delegation that took over the United Nations seat formerly occupied by **Taiwan**. Then, in 1991, he published his autobiography in China, *Twelve Years Underground with Zhou Enlai*, in which he revealed his espionage role. Though not considered a founder of the **Ministry of Public Security**, nor the **Ministry of State**

Security (MSS), his considerable contributions to the **Chinese Communist Party**'s success in the Chinese Civil War are often cited within the MSS but as an example of one's revolutionary spirit, not as a practitioner of intelligence operations. He died on 9 September 2005, having completed his diplomatic career as ambassador to Mexico.

XU BING. A manager with Everbright Science and Technology based in Nanjing, Xu Bing was sentenced on 1 July 2009 to 22 months' imprisonment after attempting to export military grade night-vision technology to the People's Republic of China (PRC). Xu admitted, after first attempting to obtain an export license for the technology, that he and others at Everbright had tried to obtain the equipment illegally. The company sent \$14,000 to an undercover agent in New Jersey, but when Xu arrived to discuss the transaction in October 2007, he was arrested. *See also TECHNOLOGY ACQUISITION; UNITED STATES OF AMERICA (USA).*

XUE FENG. In December 2011, a Chinese-born American geologist, Xue Feng, was convicted of espionage and sentenced to eight years' imprisonment after a secret trial held in Beijing.

Xue, who received his doctorate from the University of Chicago, had been working in China for IHS Inc., a Colorado-based energy firm, when he was arrested in November 2007 by the **Ministry of Public Security (MPS)** and accused of collecting secret data on China's oil industry. While under interrogation, MPS officers stubbed burning cigarettes out on his arms and hit him with an ashtray.

During his trial, Xue was accused of selling a database that contained information relating to the coordinates and volumes of reserves for 30,000 Chinese oil wells. Also convicted were Chen Mengjin and Li Dongxu, both Xue's former classmates at a Chinese university who were later employed by PetroChina and were sentenced to 30 months' imprisonment. A third defendant, Li Yongbo, a manager at the Beijing Licheng Zhongyou Oil Technology Development Company, received eight years. In supporting Xue, IHS maintained that the data gathered by Xue was not classified and was readily available from open sources.

XU LIN. In May 1990, Xu Lin, a 32-year-old consular official at the People's Republic of China's embassy in Washington DC, defected and

announced his decision at a press conference sponsored by a student group, the Independent Federation of Chinese Students and Scholars. Xu, who had worked in the embassy's education section, had been assigned to work with Chinese student organizations, but he had become increasingly disenchanted with official Chinese policy, especially after the June 1989 Tiananmen Square massacre. Xu stated that he had arrived in the **United States** in 1988, so he had not been a firsthand witness to the violent crackdown on the democracy movement. Xu had persuaded fourteen Chinese diplomats in the United States to defect, including five in Washington, four in San Francisco, four in Chicago, and one in New York.

Xu described how, after this episode, he was told by senior embassy officials that the ideological training given to students in the United States should be strengthened and that they must be discouraged from attending pro-democracy meetings. However, he also claimed that many embassy staff exercised a quiet resistance to the repression.

Xu revealed that he personally had held letters from students informing on the unauthorized activities of their fellow students or student groups. When Xu testified before the House Foreign Affairs Committee, he described how the **Ministry of State Security** had taken an active role in recruiting embassy personnel to monitor and harass students with suspected reformist and pro-democracy sympathies.

XU WEIBO. The president of Manten Electronics in Mount Laurel, New Jersey, Xu Weibo was arrested in July 2004 and charged with violating the export laws. Also arrested was his wife and purchasing agent, Xiu Lingchen; her brother and company vice president, Hao Lichen; and Hao's wife and company comptroller, Kwan Chun Chan, who were all naturalized U.S. citizens. In May 2006, they admitted sending restricted electronic items that had a military application and were valued at \$400,000 to China at the request of the 20th Research Institute and 41st Research Institute and lying to American distributors and concealing the nature of the shipments.

According to documents filed in court, the two Chinese research facilities were part of the Ministry of Information Industry and develop military and civilian communications technology. The 20th Research Institute was described as specializing in aircraft landing systems and military radio navigation technology, while the 41st Research Institute works on military amplifiers and testing devices for military instruments. It was alleged that the 20th Research Institute "poses an unacceptable risk in the development

of weapons of mass destruction or the missiles used to deliver weapons of mass destruction.”

The four defendants agreed to forfeit \$391,337, which represented profits from the company for the two years prior to their arrests, and Xu was sentenced to 44 months in prison. Xiu received an 18-month sentence, Hao received a 30-month sentence, and Kwan received 6 months’ house arrest. *See also TECHNOLOGY ACQUISITION; UNITED STATES OF AMERICA (USA).*

XU YONGYUE. In 1998, Xu Yongyue, a native of Zhenping in Henan Province and a member of China’s blue-blooded elite, was appointed minister of state security in succession to Jia Chunwang. Xu was a trusted deputy to President Jiang Zemin and advocated an end to the corruption that had plagued the ministry, such as the sale of exit permits for travel to **Hong Kong** that were routinely issued to intelligence personnel. Corruption had long bedeviled the intelligence sector because the **Ministry of State Security (MSS)** was exempt from inspection by the central discipline inspection departments. In 2002, he was elected to the Central Committee and, in March 2003, he was reappointed head of the MSS. In 2004, Xu was instructed by an angry Luo Gan, a member of the Standing Committee of the Chinese Communist Party’s Central Committee’s Politburo, to monitor Ding Zilin, the mother of a Tiananmen Square victim who had submitted video testimony to the United Nations Human Rights Commission, and to other Tiananmen dissidents domestically and abroad. Under Xu, the MSS was also involved in suppressing **Falun Gong** dissidents.

On 12 October 2004, Xu attended a meeting with Nartai Dutbaev, chairman of **Kazakhstan**’s National Security Committee, to confer about bilateral cooperation on “fighting international terrorism, extremism, organized crime, and the drug business.” In February 2006, Xu led a delegation to Singapore’s minister of defense and, in 2007, was replaced by his MSS deputy, **Geng Huichang**.

Y

YANG FUNG. On 31 July 2007, Yang Fung, the president of Excellence Engineering Electronics Inc., was charged in California with illegally exporting controlled microwave integrated circuits to China without the required authorization from the Department of Commerce. On the following day, Yang pleaded guilty. *See also* TECHNOLOGY ACQUISITION; UNITED STATES OF AMERICA (USA).

YANG LIAN. On 3 December 2010, a former Microsoft engineer, Yang Lian, was arrested in Portland, Oregon, as he attempted to purchase the first 5 of 300 radiation-hardened programmable semiconductors for \$20,000 from undercover **Federal Bureau of Investigation** special agents. According to the prosecution, Yang admitted, when he pleaded guilty to charges in March 2011, that he intended to drive to Canada and fly the restricted items to the People's Republic of China himself. *See also* TECHNOLOGY ACQUISITION; UNITED STATES OF AMERICA (USA).

YARDLEY, HERBERT O. Born in Worthington, Indiana, in 1889, Herbert Yardley was the most controversial cryptanalyst of his generation and, in 1938, accepted a contact with Chinese government to solve Japanese diplomatic wireless traffic.

Until October 1929, Yardley had been employed by a secret U.S. State Department cryptographic bureau based in New York, known as the Black Chamber. Unemployed and short of money, Yardley wrote *The Secrets of the Black Chamber* in 1930 and revealed that confidential Japanese communications had been intercepted and read throughout the 1921 Washington Naval Conference. As a result of these disclosures, Yardley accepted a consultancy role in Tokyo and reconstructed the Japanese cipher systems. This left him in an ideal position, eight years later, to assist the Chinese in breaking the very same codes. Yardley's own version of this relationship, *The Chinese Black Chamber: An Adventure in Espionage*, was not declassified and published until 1983, 24 years after his death. *See also* NATIONAL SECURITY AGENCY (NSA); UNITED STATES OF AMERICA (USA).

YONG JIEQU. In 1991, Yong Jiequ enrolled in a graduate course at Concordia University in Montreal and joined the Chinese Students and Scholars Association (CSSA), where he became an activist, urging the membership not to criticize the Beijing government. Three years later, in 1994, Yong applied for permanent resident status in **Canada** and was interviewed by the federal immigration authorities and the Canadian Security Intelligence Service (CSIS), which challenged him with surveillance evidence that he had made frequent visits to the People's Republic of China embassy in Ottawa and had been seen in the company of a suspected **Ministry of State Security (MSS)** officer. Yong denied he had been recruited as an MSS agent or had collected information on other Chinese students, and an immigration court later ruled that, as the CSSA was not a Canadian institution, no espionage had taken place.

YU, PAUL. On 4 April 1973, Dr. Paul Yu, a naturalized American citizen of Chinese origin, hanged himself in the washroom of TWA flight 742 from Taipei shortly before it landed in Honolulu. The immensely successful proprietor of Ad-Yu Electronics, based in Pessaic, New Jersey, since 1951, Yu had just been refused a visa to enter **Hong Kong** and was returning to the **United States** to face questions from the **Federal Bureau of Investigation** over alleged violation of federal bankruptcy laws. Yu was also suspected of illegally exporting missile components, but the mystery surrounding his death was never cleared up.

YUE ZHONGLIE. In 1981, a Chinese citizen, Yue Zhonglie, was convicted of spying for the Soviets and sentenced to seven years' imprisonment in the People's Republic of China. According to reports of his trial, he had crossed into the **Soviet Union** the previous year and had been recruited by the KGB to collect economic, military, and political information.

YU JUNGPING. Said to be a senior colonel of the **People's Liberation Army**, formerly assigned to the People's Republic of China embassy in Washington DC, Yu Jungping reportedly defected to the **United States** in the 1990s; although, no public announcement was made. *See also UNITED STATES OF AMERICA (USA).*

YU QIANGSHENG. The son of Yu Qiwei, the head of the clandestine propaganda department in Qingdao, Shandong, who died of a heart attack in

1958, at the age of 47, Yu Qiangsheng was adopted by **Kang Sheng** and employed in the **Ministry of State Security's (MSS)** foreign espionage branch until he defected in 1985 to the **Central Intelligence Agency (CIA)**. At the time, he was on a visit to **Hong Kong** to see his French girlfriend, reportedly a U.S. State Department employee. Codenamed **PLANESMAN** by the **Federal Bureau of Investigation (FBI)**, he supplied information that led to the identification of **Bernard Boursicot** and **Larry Wu-tai Chin** as MSS sources. The defection proved a major setback for the MSS and resulted in the dismissal of Lin Yun.

Yu's father, who adopted the name Huang Jing to escape the **Kuomintang (KMT)**, was appointed the **Chinese Communist Party (CCP)** leader in the northern port city of Tianjin. Yu's mother was Fan Jin, who had been closely associated with Premier **Zhou Enlai**. She had also replaced Jiang Qing in her husband's affections, thereby creating a problem for her when the latter married **Mao Zedong**. Yu's brother was Yu Zhen Sun, the Party chief in **Shanghai**, while their uncle was Yu Tai Wai, a senior KMT politician in Taiwan, a rocket expert who later became minister of defense.

During the **Cultural Revolution**, Yu, then a member of the **Ministry of Public Security**, was banished to the countryside, where he was unable to protect his mother from degradation at the hands of Red Guards directed by her old rival, Jiang Qing. Having failed to prevent her humiliation, Yu would become increasingly resentful at her treatment until he finally made contact with the CIA.

Yu's brother Yu Zhengsheng, a senior CCP official in the central province of Hubei, found his career handicapped by the defection, but he later recovered and was recommended as a candidate for the Standing Committee of the Politburo in 2002 and as a vice premier. His ability to avoid the dire political consequences usually associated with a family member's disgrace was attributed to his friendship with Deng Pufang, the eldest son of **Deng Xiaoping**, who was confined to a wheelchair after he had been thrown out of a window by Red Guards during the Cultural Revolution. Instead of being ruined, Yu, who was trained originally as a missile engineer, spent 12 years in the coastal province of Shandong and made a success of his appointment as mayor of Qingdao.

YU XIANGDONG. Also known as Mike Yu, Yu Xiangdong worked for the Ford Motor Company for 10 years until 2007, when he joined the Beijing Automotive Company in the People's Republic of China (PRC). In

November 2010, Yu pleaded guilty to two charges of transferring Ford's proprietary information about electrical power and distribution systems onto a computer hard drive and taking it to the PRC. *See also* INDUSTRIAL ESPIONAGE; TECHNOLOGY ACQUISITION.

Z

ZHANG, DAVID. In October 2010, David Zhang, also known as York Yuan Chang, and his wife, Leping Huang, who were the owners of General Technology Systems Integration Inc., were arrested by U.S. Customs agents and charged with illegally exporting dual-use technology to the Sichuan Institute of Solid-State Circuits. *See also* TECHNOLOGY ACQUISITION.

ZHANG, MICHAEL MING. On 20 January 2009, Michael Ming Zhang, aged 49, and Policarpo Coronado Gamboa, aged 40, were arrested in California and charged with illegally exporting controlled electronic equipment to the People's Republic of China (PRC) and with the illegal trafficking of counterfeit electronic components from the PRC to the United States. Zhang was the president of J. J. Electronics in Rancho Cucamonga, and Gamboa operated Sereton Technology Inc. in Foothill Ranch. Zhang was accused of exporting more than 200 computer memory devices with dual use applications used in battle tanks and of handling, in 2008, 4,300 counterfeit Cisco electronic components with an estimated retail value of more than \$3.3 million. Zhang and Gamboa were also charged with having tried, in 2007 and 2008, to sell 3,500 counterfeit Sony memory sticks made in the PRC. *See also* TECHNOLOGY ACQUISITION; TECHNOLOGY COUNTERFEITING.

ZHANG, NIKOLAI P. In July 1980, a Soviet intelligence officer, Nikolai Zhang, was convicted of espionage in the People's Republic of China (PRC), along with two Chinese companions, and sentenced to seven years' imprisonment. The two Chinese were ordered to be executed by a firing squad. According to Zhang's confession, he had undergone three years' of training and had tried to photograph the PRC's northeast border area. *See also* SOVIET UNION.

ZHANG JIYAN. In early March 2007, Zhang Jiyan, the wife of a diplomat posted at the People's Republic of China (PRC) embassy in Ottawa, defected and applied for political asylum, having acquired an internal document that revealed the existence of a 10-member unit devoted to blocking the Falun Gong's New Tang Dynasty Television request for a broadcast license. Zhang said the PRC government had agents in Canada

spying on and harassing the Falun Gong and four other dissident groups, known as “the five poisons,” being **Taiwanese**, **Xinjiang**, and **Tibetan** activists and the pro-democracy movement. Shortly after Zhang’s defection, her husband was recalled.

ZHEJIANG POLICE COLLEGE. Drawing its students from across the entire country, the Zhejiang Police College recruits many into the **Ministry of State Security (MSS)** at an earlier stage than other universities. All MSS personnel are, of course, state security police officers, but only a minority of Zhejiang Police College graduates join the **Ministry of Public Security** (the *Gongan*).

ZHONGGONG ZHONGYANG DUIWAI LIANLUO BU. This name is literally translated “**Chinese Communist Party** Central Foreign Liaison Department.” *See also* INTERNATIONAL LIAISON DEPARTMENT (ILD).

ZHONG MING. In November 2008, Zhong Ming, also known as Andy Zhong, a permanent resident from the People’s Republic of China (PRC), and Ye Fei, an American citizen, became the first defendants to be convicted under the Economic Espionage Act, a statute passed in 1996. A computer engineer, Zhong had been arrested with Ye at San Francisco airport in November 2001 with a suitcase filled with chip design documents. Zhong had previously been employed with Ye at Transmeta Corporation and Trident Microsystems, and Ye had been employed at NEC Electronics Corporation and Microsystems Inc.

An indictment, dated 4 December 2002, alleged that both men had ties to a PRC government program in Hangzhou and that the city had funded a joint venture, the Hangzhou Zhingtian Microsystems Company, which had been formed to help Zhong and Ye exploit the stolen technology. When they were searched, federal investigators found correspondence between the men and officials at China’s National High-Technology Research and Development Program. One document, translated by the **Federal Bureau of Investigation**, referred to a Chinese government “panel of experts” that had found the venture would have a “positive effect on the development of the PRC’s integrated-circuit industry” and recommended that “every government department implement and provide energetic support.”

According to their plea bargain, Zhong and Ye had incorporated Supervision, a company financed by **Project 863**, an organization based in Hangzhou, in Zhejiang Province; although, local officials claimed they had never heard of the Hangzhou Zhingtian Microsystems or the two men. Because of their cooperation, Zhong and Ye were sentenced to just one year's imprisonment. *See also TECHNOLOGY ACQUISITION; UNITED STATES OF AMERICA (USA).*

ZHOU ENLAI. Born in 1898 in Jiangsu Province to a relatively privileged family, Zhou Enlai received a good education in literature, poetry, painting, and calligraphy and, due to his grandmother's peasant background, was later able to qualify as a revolutionary when that pedigree was deemed essential. Zhou studied in **Japan** and then in **France**, where he was exposed to Communist doctrine. He also traveled to **Great Britain**, Belgium, and other European countries, before returning to China, where he was appointed director of the Whampoa Military Academy's political department when **Chiang Kai-shek** was the director. The death of **Sun Yat-sen** hastened the split between the **Chinese Communist Party (CCP)** and the **Kuomintang** that ultimately led to the Chinese Civil War and the eventual Communist victory.

At the time of the proclamation of the formation of the People's Republic of China, Zhou was named as premier and minister of foreign affairs. In that latter capacity, Zhou traveled widely until he relinquished the post in 1958, but he retained the premier's position until his death in January 1976. He was also responsible in 1954 for developing the five principles of peaceful coexistence, announced at the Bandung Conference, which were intended to be the guides to enhancing links with newly decolonized countries, the basis of which was a declared respect for territorial integrity and noninterference in a country's internal affairs.

Zhou was steeped in clandestine operations and had been the principal CCP intelligence officer in **Shanghai** throughout the 1930s. He was especially adept at infiltrating agents into the Kuomintang, or *baibu de leng qizi* (putting in place dormant chess pieces), such as **Xiong Xianghui**, who was appointed General Hu Tsung-nan's personal aide.

In his *In Search of History: A Personal Adventure*, Theodore White described Zhou as "along with Joseph Stilwell and John F. Kennedy, one of the three great men I met." Zhou argued for more conciliatory foreign policies than the distrustful **Mao Zedong** and, as a result, played a key role

in the normalization of relations between China and the **United States**. When the Chinese first learned of the American initiative, Mao was suspicious, but Zhou, who understood the potential of good intelligence, consulted **Shen Jian**, the veteran **International Liaison Department** official and **Kang Sheng** confidant. Zhou tasked Shen to check on the overture's authenticity and, having contacted **Larry Wu-tai Chin**, confirmed that the approach was valid.

Zhou had a profound influence on China's intelligence community and even today remains a revered figure, often quoted by **Ministry of State Security** personnel. *See also* SECRET INTELLIGENCE SERVICE (SIS).

ZHOU HSINGPU. The second secretary at the People's Republic of China embassy in London since 1957, Zhou Hsingpu defected to the **Soviet Union** with his wife and two children when their ship, the *Baltika*, docked in Leningrad in October 1963.

ZHOU HUNGCHIN. In October 1963, Zhou Hungchin, a 44-year-old member of a Chinese delegation of technicians on a visit to Tokyo, defected to the **Soviet Union**.

ZHU, PETER. On 26 August 2006, Peter Zhu, purportedly employed by the Shanghai Meuro Electronics Company, attempted to buy several restricted products that required export licenses, including amplifiers used in digital radios. These broadband items are three-stage devices designed for use in commercial digital radios and wireless local area networks and are listed in the International Traffic in Arms Regulations. Zhu's request was made to an undercover Immigration and Customs Enforcement agent, and thereafter, Ding Zhengxing and Su Yang became involved in the negotiations. Both Ding and Su traveled to Saipan in the Mariana Islands on 25 January 2008 to receive the amplifiers and were arrested. They were later indicted for conspiracy to illegally export defense articles, aiding and abetting the illegal export of defense articles, and conspiracy to launder monetary instruments, and they returned to El Paso, Texas, while Peter Zhu became a fugitive. *See also* TECHNOLOGY ACQUISITION; UNITED STATES OF AMERICA (USA).

ZHU CHENZHI. On 10 June 1950, a Chinese Communist spy, Zhu Chenzhi, was shot in **Taiwan** by a firing squad along with her source, Wu Shi. The Republic of China's deputy minister of defense, Wu had provided

her with top secret information, including the island's strategic defense plans. Three other senior **Kuomintang (KMT)** officials were also found guilty of espionage.

Born in 1905, the fourth daughter of a wealthy owner of a fishing company in Ningpo, Zhu was educated at a school where she came under the influence of the principal who was an underground member of the **Chinese Communist Party**. At the age of 20, she participated in demonstrations in **Shanghai** with classmates who were sympathetic to the cause. In 1925, she took part in antiforeign protests in Shanghai and two years later married the chief engineer of a munitions plant supporting the warlord Zhang Zuolin, who controlled most of northeast China.

Following the Japanese occupation in 1931, she moved with her husband and daughter, Zhu Xiaofeng, to Nanking, where he succumbed to cholera the following year. In 1937, she married again, to a Communist, and they lived in Wuhan, working for the party. This involved frequent travel to **Hong Kong**, Zhejiang, and Guilin, to gather intelligence and raise money. However, in 1940, her husband was arrested by the KMT and incarcerated in a camp in Shangrao, Jiangxi Province, where she was able to visit him three times before he organized a mass escape.

Then in 1944, in Shanghai, she was arrested and interrogated by the Kempeitai, the **Japanese** military police, but she was released and continued to work in the Communist underground movement until 1948, when she was sent to Shanghai to work for a commercial enterprise and visited Taiwan. This led to her main assignment, to maintain contact with Wu Shi, a long-time Communist sympathizer who, unpaid, had been supplying valuable military information about the KMT since 1947.

In November 1949, Zhu traveled under alias by boat from Victoria Harbour to the north Taiwanese port of Keelung, concealing gold jewelry in her clothes, and stayed at the home of her stepdaughter, who was employed by the KMT's intelligence service. On Saturdays, she would visit Wu, pretending to make deliveries of pharmaceuticals, but in reality, she received information, which she then couriered to Cai Jiaogan, the head of the Communist Party in Taiwan. Altogether, Zhu made seven trips but, in January 1950, was compromised when Cai was detained and questioned. She was arrested on 18 February in the Zhoushan islands off Zhejiang before she could leave for Hong Kong and flown to Taipei for interrogation.

Having refused to cooperate with her captors, she was executed four months later.

ZHU YAN. In April 2006, Dr. Zhu Yan, a 29-year-old Chinese living in the **United States** with a work visa, who had received a PhD in geo-environmental engineering from Columbia University, was hired by a computer software company in New Jersey, which sold environmental management software to a government agency in China's Shanxi Province. Zhu worked for a comprehensive multimedia environmental information management portal that developed a proprietary software program for the Chinese market, which allowed users to manage air emissions, ambient water quality, and ground water quality. Zhu's employment was terminated in July 2008, and in April 2009, he was arrested and charged with sending his company's entire database to China's Shanxi Province Environmental Protection Agency, thus enabling it to renege on its contracted payments and to pirate the vendor's propriety software. *See also TECHNOLOGY ACQUISITION.*

ZIELONKA, STEFAN. In May 2009, Warrant Officer Stefan Zielonka, a 52-year-old member of the Polish Sluzba Wywiadu Wojskowego (SWW), was thought to have defected with his wife and child to the People's Republic of China. Zielonka had worked as a SWW cipher clerk for 30 years and was familiar with the North Atlantic Treaty Organization's (NATO) encryption systems and Polish intelligence operations worldwide. Reportedly, Zielonka and his family had been resettled by the **Ministry of State Security** in the **Shanghai** area, but his body was recovered from the Vistula in April 2010.

ZONGCAN SANBU. The **Third Department** of the **People's Liberation Army's (PLA) General Staff Department**, this organization is the PLA's principal signals intelligence branch, reportedly employing 20,000 personnel.

Bibliography

INTRODUCTION

Books on the subject of Chinese intelligence operations are indeed rare, partly because, for many decades, Beijing's security apparatus was deeply introspective, scarcely interested in foreign collection operations, and partly because, until recently, there were few opportunities in the West to study examples of Chinese espionage. The situation was no better on Taipei, or indeed Hong Kong or Macao. Accordingly, the literature is thin in English.

The first author who attempted to tackle the topic was Richard Deacon in 1974. An old newspaper hand, and a former wartime British naval intelligence officer, Deacon had begun a series of intelligence agency histories in 1969 with his *History of the British Secret Service*, followed by a *History of the Russian Secret Service* and later by similar books on the French and Japanese services. A pioneer in the field of documenting a notoriously difficult subject, Deacon laid the groundwork for many others seeking to lift the veil of secrecy on the international intelligence community; although, there would not be another attempt until two French journalists, Roger Faligot and Remi Kauffer, produced *The Chinese Secret Service: Kang Sheng and the Shadow Government in Red China* in 1989. Thereafter, nobody else tried to research in the same area, and the dearth of material to work on is probably the reason.

The heads of the British, French, Indian, Israeli, Rhodesian, German, American, Romanian, and Soviet intelligence agencies have been published. So too have their subordinates, with the field being led by American, South African, and British retirees but with a sprinkling of Canadians, Australians, and Norwegians. In addition, there are the defectors, mainly Soviets, who have released their memoirs having been resettled in Australia, Canada, Norway, Great Britain, and the United States. And yet, there is not a single member of the Chinese Ministry of State Security (MSS) who has ever released an account of his or her activities. Quite simply, the People's Republic of China (PRC) stands alone as being a major player in the world of espionage without ever having contributed to the literature. There is no tradition of retirees publishing their memoirs, of senior officers recalling their triumphs, of former prisoners writing of their experiences, of journalists chasing cases of espionage, or of government agencies declassifying documents and making archival material available to historians.

Although little has been written on the broad topic of the People's Republic of China's (PRC) intelligence operations, quite a lot has been published concerning individual examples of Chinese espionage, and these case histories fall into four broad categories. Firstly, there are the books covering espionage conducted during World War II, a collection dominated by accounts of the Office of Strategic Services (OSS); although, this organization was preoccupied with developing a liaison relationship with the Nationalists against the common enemy, the Japanese Empire. Secondly, there are the case histories of specific examples of PRC espionage, some quite obscure, such as the Chi Mak spy ring, the notorious Wen Ho Lee investigation into the loss of American nuclear secrets, the Federal Bureau of Investigation prosecutions of the *Amerasia* defendants, and the more recent breach of security that centered on Larry Chin. Thirdly, there are the titles devoted to the Kuomintang (KMT) and Nationalist politics and, finally, the more modern, more polemic studies of the threat posed by the PRC's burgeoning economy.

During World War II, the OSS attempted to develop a relationship with the Chinese in the over-optimistic hope of challenging the Japanese in the region, but the results were mixed, as several eyewitnesses recorded, among them Colonel Francis B. Mills, Oliver J. Caldwell, Charles Fenn, and

Milton Miles. In addition, Dan Pinck, Kermit Roosevelt, and Maochun Yu have documented the OSS's activities in mainland China, mainly based on declassified documents. A useful bibliography of OSS material was published by Dan Pinck in 2000.

In the postwar era, the very closed nature of Communist Chinese society was reflected in the paucity of the literature. There was considerable hostility to the "China lobby" in the United States, where advocates of better relations, or indeed any relations with Beijing, were regarded with considerable suspicion of being crypto-Communists. Accordingly, little went into print, and anyone supporting the PRC cause after the Korean War, which technically only ended in a ceasefire, found that their opinions handicapped their careers. In the case of Jack Service, whose fight for reinstatement took him to the U.S. Supreme Court, he was not published until 1971.

Following President Richard Nixon's historic visit to Beijing, there was a profound change in attitude to the PRC, and the country that hitherto had been isolated from the outside world became the subject of intense interest to some political scientists, even if they found the challenge daunting, with restrictions on research to the point that what would be considered legitimate academic enquiry elsewhere was viewed as tantamount to espionage by the authorities in Beijing.

In more recent years, the PRC's espionage operations conducted within in the United States have attracted considerable attention, both from the media and from Congress; although, only one case, that of the Los Alamos physicist Wen Ho Lee, has resulted in more than a single case history. Unusually, Wen Ho Lee wrote his version of events in 2002; then his Department of Energy investigator, Notra Trulock, wrote his the following year, and in 2007, Dan Stober and Jan Hoffman released *A Convenient Spy*. The revelation that the PRC had embarked on a lengthy campaign to influence and recruit ethnic Chinese in the United States encouraged Congress and the media to pursue the issue, but even the well-connected *Washington Times* correspondent Bill Gertz has never interviewed an MSS defector.

In the absence of these sources, or even original documentation, the emphasis shifts from intelligence operations conducted *from* Beijing to books written by those who have made a study of intelligence collected *about* the PRC, and the first to cover this area from his own experience was probably Dr. Ray Cline, who released *Secrets, Spies, and Scholars* in 1981. Since then, David Kaplan has pursued the Kuomintang's involvement in the notorious murder of the journalist Henry Liu.

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About the Authors

I. C. Smith was born in Memphis, Tennessee, served in the U.S. Navy, and graduated from the University of Louisiana at Monroe while working as a police officer. He joined the Federal Bureau of Investigation (FBI) in 1973 and, over the next 25 years, was assigned to St. Louis, Missouri; Washington, DC; Miami, Florida; and Little Rock, Arkansas. He also served between 1988 and 1990 as the FBI's legal attaché in Canberra, Australia, with responsibility for liaison with the independent nations of the South Pacific, including Papua New Guinea and New Zealand.

While posted to the FBI's Washington Field Office, he was assigned, at his request, to a Chinese counterintelligence squad, was promoted its supervisor, and led the investigation of Larry Wu-tai Chin, the CIA officer who spied for the People's Republic of China for over 30 years. He was promoted to FBI Headquarters, where he completed the first affidavit and made the presentation before the Foreign Intelligence Surveillance Court to obtain approval to conduct electronic surveillance of China.

His other duties included a year as an FBI Inspector's Aide, where he inspected FBI offices throughout the United States as well as offices in Hong Kong and Tokyo; unit chief for the East German counterintelligence squad, where he served in the Federal Republic of Germany to liaise with the Bundesamt für Verfassungsschutz (BfV); and assistant special agent in charge of the Miami Field Office, where he handled air force General Rafael del Pino, the most senior Cuban officer ever to defect.

In 1990, he was promoted to the FBI's elite Senior Executive Service and appointed the State Department's Chief of Investigations, Office of Counterintelligence Programs, Diplomatic Security and traveled to the Soviet Union, China, and Nicaragua to conduct threat analyses for the high-risk diplomatic establishments. Upon his return to the FBI's National Security Division, he was appointed section chief for analysis, budget, and training, responsible for liaison with foreign intelligence and security agencies and representing the bureau within the U.S. intelligence community and on the National Foreign Intelligence Board, where National Intelligence Estimates are prepared for reading by the president of the United States. There, he was also designated an inspector-in-place.

In 1995, he was transferred to Little Rock as special agent in charge for the state of Arkansas during the height of the Whitewater campaign finance investigations involving Charlie Trie and John Huang. After retirement in 1998, he testified before a Senate committee that was investigating Chinese influence in U.S. elections and illegal campaign finance contributions in an FBI investigation codenamed CAMPCON.

Since retirement, he has lectured at the Smithsonian Institution, the Department of Defense's Joint Counterintelligence Training Academy, the Office of the Counterintelligence Executive, Mercyhurst College, Arkansas State University, and the Raleigh (North Carolina) International Spy Conference. He has frequently appeared on major television networks, including CBS and ABC, and his autobiography, *Inside*, was published in 2004. In 2009, he testified before the U.S.-China Commission in Washington, DC, on the intelligence threat posed by the People's Republic of China. In 2011, he lectured at the International Spy Museum in Washington, DC. He continues to be a knowledgeable source of information for those writing about the threat posed by China to the national security of the United States and has been quoted by such authors and reporters as Seymour Hersh, Michael Isikoff, Ron Kessler, Chitra Ragavan, Bill Gertz, and David Wise, and was the principal interviewee for PBS's *Frontline* report "From China with Love," an exposé on the Katrina Leung espionage investigation. He appeared on Japan's Asahi television network and was interviewed by Romania's HotNews (an online newspaper) and by the BBC.

He and his wife, Carla, moved to Virginia's Tidewater area in 1999, where they keep Arabian horses. His website can be found at www.icsmith.com.

Nigel West is a military historian specializing in intelligence and security issues, and while still at university, he worked as a researcher for two authors: Ronald Seth, who had been parachuted into Silesia by SOE, and Richard Deacon, a former wartime Naval Intelligence officer and latterly the foreign editor of the *Sunday Times*. He later joined BBC TV's General Features department to work on the SPY! and ESCAPE! series.

His first book, coauthored with Richard Deacon in 1980 and published by BBC Publications, was the book of the SPY! series and was followed by other nonfiction: *MI5: British Security Service Operations, 1909–1945* (Bodley Head, 1981); *A Matter of Trust: MI5, 1945–72* (Weidenfeld and Nicolson, 1982); *MI6: British Secret Intelligence Service Operations,*

1909–45 (Weidenfeld and Nicolson, 1983); *The Branch: A History of the Metropolitan Police Special Branch* (Secker and Warburg, 1983); *Unreliable Witness: Espionage Myths of the Second World War* (Weidenfeld and Nicolson, 1984); *GARBO* (coauthored with Juan Pujol, Weidenfeld and Nicolson, 1985); *GCHQ: The Secret Wireless War* (Weidenfeld and Nicolson, 1986); *Molehunt* (Weidenfeld and Nicolson, 1987); *The Friends: Britain's Postwar Secret Intelligence Operations* (Weidenfeld and Nicolson, 1988); *Games of Intelligence* (Weidenfeld and Nicolson, 1989); *Seven Spies Who Changed the World* (Secker and Warburg, 1991); *Secret War: The Story of SOE* (Hodder and Stoughton, 1992); *The Faber Book of Espionage* (Faber and Faber, 1993); *The Illegals* (Hodder and Stoughton, 1993); *The Faber Book of Treachery* (Faber and Faber, 1995); *The Secret War for the Falklands* (Little, Brown, 1997); *Counterfeit Spies* (Little, Brown, 1998); *Crown Jewels* (with Oleg Tsarev, HarperCollins, 1998); *VENONA: The Greatest Secret of the Cold War* (HarperCollins, 1999); *The Third Secret* (HarperCollins, 2000); *Mortal Crimes* (Enigma, 2004); *The Guy Liddell Diaries* (Routledge, 2005); *MASK* (Routledge, 2005); *Historical Dictionary of British Intelligence* (Scarecrow, 2005); *Historical Dictionary of International Intelligence* (Scarecrow, 2006); *On Her Majesty's Secret Service* (Greenhill, 2006); *Historical Dictionary of Cold War Counterintelligence* (Scarecrow, 2007); *Historical Dictionary of World War II Intelligence* (Scarecrow, 2008); *Historical Dictionary of Sexspionage* (Scarecrow, 2009); *TRIPLEX: Secrets from the KGB Archives* (Yale University Press, 2009); *Historical Dictionary of Ian Fleming's James Bond* (Scarecrow, 2009); *Historical Dictionary of Naval Intelligence* (Scarecrow, 2010); *SNOW* (Biteback, 2011).

In 1989, he was voted The Experts' Expert by a panel of spy writers selected by the *Observer*. He is currently the European editor of the *International Journal of Intelligence and Counterintelligence* and teaches the history of postwar intelligence at the Centre for Counterintelligence and Security Studies in Alexandria, Virginia. In October 2003, he was awarded the U.S. Association of Former Intelligence Officers first Lifetime Literature Achievement award. His website can be found at www.nigelwest.com.